



SELF STUDY REPORT

FOR

1st CYCLE OF ACCREDITATION

INDIRA COLLEGE OF ENGINEERING AND MANAGEMENT

GAT NO. 276, PARANDWADI, OFF PUNE-MUMBAI HIGHWAY, NEAR
SOMATANE PHATA, TALUKA - MAVAL, DIST - PUNE
410506

www.indiraicem.ac.in

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NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

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1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Shree Chanakya Education Society was established in February 1994 by Dr Tarita Shankar, an educationist and social reformer with an explicit vision of providing sustainable impetus to the corporate and entrepreneurial abilities in the youth. It has created a robust framework of education under the banner of **Indira Group of Institutes**, imparting top quality graduate and post-graduate courses in the field of business management, science and engineering. Under IGI group, 12 Institutions are delivering cutting edge learning to over 12000 students from KG to PhD.

In 2007 under the umbrella of **IGI, Indira College of Engineering and Management** has laid its foundation in the serene and picturesque settings of Parandwadi Village which was then parched in terms of educational and infrastructural facilities. The institute is approved by **AICTE**, New Delhi, recognized by **Government of Maharashtra** and affiliated to **Savitribai Phule Pune University**, Pune.

ICEM ensures state of the art infrastructure and learning conditions to help our students achieve their academic goals and to meet industry requirements. Consistent with the high standard of education aimed at by the institution, it has got a team of highly experienced, well qualified and dedicated faculty members in teaching and research.

Institute offers 05 undergraduate engineering, 03 post-graduate Engineering and 02 Management programs which constitutes 1500+ students.

Institute has received many awards and accolades such as

- TOP 50 BEST COLLEGES in India by “Times of India, 2014,
- Outstanding Engineering Institute West by National Education Leadership Awards 2015,
- The Best Institute in Technical Education by World Education Congress Global Awards 2016,
- Outstanding Engineering College by BBC Knowledge Education Leadership Awards 2017,
- Best Academic and Industry Interface by National Education Awards 2017
- Outstanding Education Institute (West) by National Education Awards 2018.

ICEM is constantly innovating and improving students need by embracing modern technology and techniques, thus making student centric. Institute has made potential positive results in empowering people from surrounding rural communities and has been a torch-bearer in providing the refined education system.

ICEM’s endeavor has been to make “success” a habit. Today, we stand tall with the aphorism “**Educate, Innovate, Empower**”.

Vision

The institute envisions to develop itself into a center of academic excellence in the field of Engineering and Management education in order to develop future technocrats and managers having right knowledge, skill and attitude to serve the society and industries to fulfill their ever changing requirements.

Mission

- To train our students to become best Engineering Entrepreneurs today, who will lead the organizations successfully into the future; locally, nationally and globally.
- To provide an environment which fosters continuous improvement & innovation with related technical support & facilities to enhance student and faculty effectiveness.
- To provide programs focusing on the holistic development of the individual with the emphasis on personality grooming, physical fitness and a strong sense of social and environmental responsibility.
- To improve logic & scientific reasoning and to develop global mindset amongst the students and prepare them to work in heterogeneous environment.

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

- Visionary - Supportive Management and Effective Leadership
- Lush green Campus with state of the art infrastructure
- Dynamic, competent and committed faculty with good retention ratio.
- Motivation to faculty for higher education and skill enhancement
- Advance approach for student centric learning and academic enrichment
- Strong industry institute interface
- Regular / continuous initiatives for academic enrichment and extra-curricular activities
- Quality placements with focus on core industries
- Playing a vital role in social upliftment and rural development

Institutional Weakness

- Remotely located with less proximity
- Less number of Ph.D. faculty
- Few research and funded projects
- lack of meritorious students at entry level

Institutional Opportunity

- Develop research culture and motivate faculty members to pursue Ph.D.
- Generate revenue through resource sharing
- Establish product development cell and support Entrepreneurship
- Attract meritorious students at entry level
- Initiatives for renewable energy and ecofriendly campus

Institutional Challenge

- To Increase foreign university collaboration

- To upgrade curriculum with the rapidly changing industry needs
- Attract more students towards Engineering
- Establish Centre of excellence in collaboration with Industry

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

The Institute is affiliated to Savitribai Phule Pune University (SPPU) and the curriculum prescribed by university is strictly followed.

The faculty members are working as members of various statutory bodies of SPPU and playing an important role in the preparation and revision of the syllabi.

The Institute implements curriculum effectively by framing; Institute Calendar which includes curricular, co-curricular and extra-curricular activities. Department planners are prepared in line with Institute calendar.

Execution of the curriculum is based on support system by faculty members, outcome based teaching-learning process, progressive and transparent mechanism for continuous evaluation of the students.

The curriculum has integrated the cross cutting issues such as gender equality, environment sustainability, human values and professional ethics through the courses like; soft skills, audit courses and numerous other practices of the institute.

The Institute organizes several certification programs; Expert lectures from industry stalwarts, as well as innovation summits. The Institute, encourages students for internships and sponsored projects to bridge the gap between curriculum and industry requirements.

The implementation and attainment of the curriculum is regularly monitored through ERP and weekly report by Academic Monitoring Committee. IQAC maintains the quality academic environment by conducting academic audit annually.

Getting feedback from stakeholders and Department Academic Advisory Committee (DAAC) are regular practices of the institute. Feedback analysis helps effectively for curriculum enrichment.

All above implementation is grounded on numerous value based activities regarding human rights, moral and ethical values, better quality education, placement and community development.

Teaching-learning and Evaluation

Institute adheres to the admission procedure prescribed by the DTE, Maharashtra and works with the motto of “Aspire today and Inspire tomorrow. The Institute is able to attract students from various strata of the society by imparting outstanding academics, co-curricular and extra-curricular activities.

The Institute organizes Orientation program, Induction program and OMT for the entry level students to introduce the curriculum, academic facilities and to imbibe human values, self-awareness, leadership and

managerial skills.

To assess the learning levels of the students at the inception stage institute commenced entry level survey and prerequisite tests, accordingly distinctive efforts are taken to improve their performance. Institute is committed to deliver quality education to students by recruiting adequate number of qualified, competent and experienced path finders through coherent, transparent and unbiased recruitment procedure. Student Information Manual (SIM) is provided to all students at the beginning of the semester for their efficient planning and effective learning.

To foster student centric and professional learning, various innovative practices and ICT resources are used along with the conventional pedagogies. Institute has well equipped library with sufficient texts, reference books, periodicals, Journals and e-learning resources. Faculty members are enthused and supported with several facilities to get acquainted with the latest updates in their subject to raise their academic standards.

To make the students industry ready industrial visits, in-plant training, sessions from industry person are organized.

An Outcome Based Education (OBE) is adopted to measure the effectiveness of teaching and learning process with transparent Continuous Internal Evaluation (CIE).

The Institute strictly adheres to the examination reforms and time lines defined by the University. A Committee is formed to address the grievances related to the examinations.

Feedback from stakeholders has been collected, analyzed and reviewed to plan and define the strategies for the overall development of the Institute.

Research, Innovations and Extension

The Institute has constituted Research and Development Committee to promote research and consultancy related activities. The Institute facilitates, channelizes, provides necessary financial support and regulates all the academic and industry-institute sponsored projects for smooth execution of research schemes. many department has received grants for several research projects. The Institute regularly conducts workshops and Seminars on Intellectual Property Rights (IPR), industry academia practices and incubation.

The Institute aims to create a space for students to transform their innovative ideas into viable business proposition. The team ambitions at building pioneering start-ups with critical network resources. It works on a spectrum of ideas, promotes and facilitates knowledge, innovation and entrepreneurial activities with a vision to convert 'Techno- Innovation' into 'Techno- Entrepreneurship' and thereby establishing a relationship between them.

The institute motivates and facilitates faculty members and students to publish their research work in reputed journals and conferences. Faculty members and students are motivated for research activities and encouraged to file patents. Field visits are organized to bridge the gap between theoretical and practical applications.

The Institute has NSS and student welfare unit which provides a unique platform for the all-round, holistic

development and inculcate a sense of responsibility, discipline, compassion and service amongst the learners. Social activities includes; Jagruti, Blood Donation Camp, Swachha Bharat Abhiyan, Cashless Economy Workshop, Tree Plantation, Traffic Rule Awareness Rally and Road Safety Awareness Program etc. through NSS cell.

To enhance the technical knowledge of students, institute provides financial assistance and permits the students to participate in the various national and international technical events and competitions such as BAJA, Supra, Efficycle, Go-Kart, Garudashwa, Hackathon, Avishkar etc.

The Institute has collaborations with reputed organizations, industries which has resulted in opportunities for the development of laboratories, industry-institute sponsored projects, industrial training and hands-on experience to students and faculty members.

Infrastructure and Learning Resources

Indira College of Engineering and Management (ICEM) is situated in a rural surrounding in Parandwadi amidst beautiful hills. This noise-free campus, since its day of inception in 2007, has maintained high standards in infrastructure and learning resources. The institute constantly strives to improve the students' learning environment by providing the infrastructure that is on par with the prestigious institutions of India.

Our physical infrastructure comprises of 30 classrooms, 7 tutorial rooms, 56 laboratories, 5 seminar halls, computer centre, workshop, incubation cell and T & P cell which are spacious and ergonomically designed.

Adequate hostels, modern gymnasium and hygienic canteen are available on the campus. Sports ground, indoor games facilities are available in the campus .The campus has fully automated drinking water treatment plant and the sewage treatment plant (STP) for treating the wastewater generated inside the campus.

The digitally enabled central library comprises of 29206 books, 87 journals and 10 magazines in specialized areas with the Library Management Software SLIM 21(3.4 Version) with 628 Sq.mtr.

Institute has an IT infrastructure with the huge network of 760 computers, 02 Servers, Wi-fi enabled campus and a dedicated network bandwidth of 100 Mbps and a secured firewall. The Campus is Under Camera Surveillance with 65 Cameras and 30TB of storage.

An external agency(dedicated team of employees) is hired for the maintenance of campus facilities such as housekeeping, security, gardening, and gymkhana and purchase. The civil infrastructure, landscaping, and maintenance are carried out by the planning and development committee. Emergency exits, Firefighting Systems, Diesel Generator are also provided.

Student Support and Progression

Institute has an effective and efficient system for holistic development of students in academics, co-curricular and extracurricular activities.

Effective personal mentoring system is available in the institute to support and guide the overall development of students. A special counselling center (CARE, C = Counsel, A = Advice, R = Rise, E = Evolve) is launched

by management.

The Institute has a well-built system of informing students about various schemes of welfare measures such as scholarships, freeships and student safety insurance schemes. The Institute provides special full-scholarship to help the ward of farmers, who have committed suicide under the scheme Indira sustainable Maharashtra Initiative (ISMI) . To help the needy students, the institute implements 'Earn & Learn' scheme as per the university guidelines.

Institute have various statutory committees such as Grievances Redressal , Internal Compliance, Anti-ragging, Women cell and SC/ST student cell.

For career guidance, grooming and personality development, Competitive Examination Cell, Talent Management Cell and Incubation Cell is established. The Training and Placement cell is active in handling free finishing school trainings , recruitments and quality placement for students.

The institute has an active Alumni Association which helps in Institute-Industry interface by organizing seminars, guest lectures and interactive sessions in order to improve technical skills and placement

Through the active student council, the students are encouraged to take part in several responsible administrative positions, which improves their leadership skills and decision making ability. We organize different cultural activities to nurture students' talent through RangKarmi group and cultural committees. Exclusive sports committee has been formed under the Physical Director to train the students for various inter-college and inter-university sports competitions. The NSS inculcates human and social values amongst the students by organizing various activities like blood donation camp, Swachh Bharat Abhiyan, road safety campaign, plantation, celebration of birth anniversary of national heroes etc.

Governance, Leadership and Management

The governance of the institution envisions developing itself into a Centre of academic excellence in the field of Engineering & Management through governing council and college development committee as per guidelines of Maharashtra University Act 2015.

Infrastructure planning, Development, and HR policies and practices of the institute are administrated by the Group Executive Director Projects and the Group Executive Director Admin & HR respectively.

Department academic advisory committee(DAAC) has been contituted to review the academic standard of departments

The participative management plays a significant role in the evolutionary reforms through a well-defined organizational structure and by forming different statutory and Non-statutory committees, which helps in smooth functioning of administrative and academic processes.

Well planned & transparent budgeting system is followed to make efficient and effective use of financial resources.

Institution has effective welfare measure for teaching and non-teaching staff.

Institute encourages faculty and staff members for higher studies, Faculty Development Programme (FDP), skill development programs, conferences, workshops, seminars, and research publications. Annual Performance appraisal system is in place for the staffs.

The institute has an active student council, which plays a major role in organizing different co-curricular and extracurricular activities throughout the year.

IQAC focuses on improving the academic standards, faculty development, student-centric learning and outcome-based education. IQAC has been instrumental in conducting academic audit, stakeholders feedback and suggesting reforms to improve teaching-learning process.

Institutional Values and Best Practices

Institute maintains eco-friendly and green lifestyles in the campus by undertaking massive plantation programme involving the NSS volunteer to reduce the carbon footprint.

The institute also has practices like **Sewage Treatment Plant, Water Treatment Plant (WTP), E-waste management system** and has a plastic free campus. Safety facilities like CCTV, fire extinguisher, 24 X 7 security agency, tie up with hospital and ambulance facility are available.

In order to inculcate universal values amidst the students, the college celebrates cultural activities(Avishkar),national festivals . Indira Community Services (ICS) is one of the most significant programs in initiating benefit for local communities in terms of techno-social and economic aspects.Besides that, many social activities are organised by the students which helps them to understand their social responsibilities.

To boost the academic-industrial interaction, the institute has taken remarkable initiatives like industrial visit,internship,in-plant training and "**One Faculty- One Industry initiative**"

The institute library organises various activities to create research culture and awareness of open -access and e-resources amongst the faculties and students.

Awards to teaching & non-teaching staff are given to recognize the best performers, who contribute to the development and excellence of the institution. The institute focuses on staff welfare by providing facilities like medi-claim, free health check-up, faculty development programs etc.

For holistic development of students, activities like intensive in-house free training in technical expertise, soft skill for personality grooming and aptitude training for better placements through exclusive Talent Management Cell.

Institute level different activities like Techfest, scholar club, project competition,seminar,conference and workshop provides platform to groom technical, interpersonal and leadership skills. Students represent the institute and secure prominent positions at State & National Level Competition such as Supra, Hackathon, BaJa etc. Through international visits and study programs, the students are able to get international exposure. The institute has created an Incubation Cell to nurture entrepreneurship.

Institute organizes Indira International Innovation Summit(3i) every year where innovators,entrepreneurs and

senior leaders from reputed industry are invited to promote industry linkage and exchange of intellectual ideas.

Indira Sustainable Maharashtra Initiative (ISMI) by Indira Group provides financial assistance to the wards of the farmers who committed suicide.

NAAC

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	INDIRA COLLEGE OF ENGINEERING AND MANAGEMENT
Address	Gat No. 276, Parandwadi, Off Pune-Mumbai Highway, Near Somatane Phata, Taluka - Maval, Dist - Pune
City	Pune
State	Maharashtra
Pin	410506
Website	www.indiraicem.ac.in

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Professor	Santosh Shriram Sonavane	-	9860157191	-	santosh.sonavane@indiraicem.ac.in
Principal	Sunil Shantinath Admthe	02114-661565	9422411441	02114-661666	principal@indiraicem.ac.in

Status of the Institution	
Institution Status	Self Financing and Private

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minority institution	No

Establishment Details				
Date of establishment of the college		18-06-2007		
University to which the college is affiliated/ or which governs the college (if it is a constituent college)				
State	University name		Document	
Maharashtra	Savitribai Phule Pune University		View Document	
Details of UGC recognition				
Under Section	Date		View Document	
2f of UGC	26-04-2018		View Document	
12B of UGC				
Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)				
Statutory Regulatory Authority	Recognition/Approval details Institution/Department programme	Day,Month and year(dd-mm-yyyy)	Validity in months	Remarks
AICTE	View Document	10-04-2018	12	

Details of autonomy	
Does the affiliating university Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated colleges?	No

Recognitions	
Is the College recognized by UGC as a College with Potential for Excellence(CPE)?	No
Is the College recognized for its performance by any other governmental agency?	No

Location and Area of Campus				
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	Gat No. 276, Parandwadi, Off Pune-Mumbai Highway, Near Somatane Phata, Taluka - Maval, Dist - Pune	Rural	10	17180.97

2.2 ACADEMIC INFORMATION

NAAC

Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	Name of Programme/Course	Duration in Months	Entry Qualification	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BE,Computer Engineering	48	HSC	English	120	94
UG	BE,Electronics And Telecommunication Engineering	48	HSC	English	60	0
UG	BE,Mechanical Engineering	48	HSC	English	120	38
UG	BE,Mechanical Engineering Sandwich	48	HSC	English	60	10
UG	BE,Civil Engineering	48	HSC	English	60	14
PG	MBA,Management	24	Graduation	English	60	60
PG	MCA,Management	36	Graduation	English	60	40
PG	ME,Master Of Engineering Computer	24	BE	English	18	1
PG	ME,Master Of Engineering Mechanical Heat Power	24	BE	English	18	1
PG	ME,Master Of Engineering Etc Communication Network	24	BE	English	18	0

Position Details of Faculty & Staff in the College

Teaching Faculty												
	Professor				Associate Professor				Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	12				21				69			
Recruited	3	1	0	4	4	4	0	8	34	35	0	69
Yet to Recruit	8				13				0			
Sanctioned by the Management/Society or Other Authorized Bodies	0				0				21			
Recruited	0	0	0	0	0	0	0	0	10	11	0	21
Yet to Recruit	0				0				0			

Non-Teaching Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				61
Recruited	49	12	0	61
Yet to Recruit				0

Technical Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				22
Recruited	18	4	0	22
Yet to Recruit				0

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	3	1	0	2	4	0	1	2	0	13
M.Phil.	0	0	0	0	0	0	0	1	0	1
PG	0	0	0	2	0	0	44	42	0	88

Temporary Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0

Part Time Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0

Details of Visting/Guest Faculties					
Number of Visiting/Guest Faculty engaged with the college?	Male		Female		Total
	3		0		3

Provide the Following Details of Students Enrolled in the College During the Current Academic Year

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
PG	Male	135	34	0	0	169
	Female	55	6	0	0	61
	Others	0	0	0	0	0
UG	Male	924	45	0	0	969
	Female	250	5	0	0	255
	Others	0	0	0	0	0

Provide the Following Details of Students admitted to the College During the last four Academic Years

Programme		Year 1	Year 2	Year 3	Year 4
SC	Male	18	19	21	21
	Female	3	5	8	9
	Others	0	0	0	0
ST	Male	4	1	0	0
	Female	0	0	1	0
	Others	0	0	0	0
OBC	Male	36	51	40	51
	Female	16	13	8	8
	Others	0	0	0	0
General	Male	157	133	162	150
	Female	43	43	78	57
	Others	0	0	0	0
Others	Male	23	16	19	25
	Female	12	3	1	5
	Others	0	0	0	0
Total		312	284	338	326

3. Extended Profile

3.1 Program

Number of courses offered by the institution across all programs during the last five years

Response: 799

File Description	Document
Institutional Data in Prescribed Format	View Document

Number of programs offered year-wise for last five years

2017-18	2016-17	2015-16	2014-15	2013-14
9	10	10	10	9

3.2 Students

Number of students year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
1580	1577	1914	1823	1873

File Description	Document
Institutional Data in Prescribed Format	View Document

Number of seats earmarked for reserved category as per GOI/State Govt rule year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
267	297	327	327	318

File Description	Document
Institutional data in prescribed format	View Document

Number of outgoing / final year students year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
361	447	455	378	436

File Description	Document
Institutional Data in Prescribed Format	View Document

3.3 Teachers

Number of full time teachers year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
105	123	128	136	121

File Description	Document
Institutional Data in Prescribed Format	View Document

Number of sanctioned posts year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
105	116	119	136	121

File Description	Document
Institutional data in prescribed format	View Document

3.4 Institution

Total number of classrooms and seminar halls

Response: 35

Total Expenditure excluding salary year-wise during the last five years (INR in Lakhs)

2017-18	2016-17	2015-16	2014-15	2013-14
741.32	1263.26	777.04	1191.79	786.92

Number of computers

Response: 639

4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curricular Planning and Implementation

1.1.1 The institution ensures effective curriculum delivery through a well planned and documented process

Response:

Institute is affiliated to SPPU and follows the curriculum prescribed by SPPU. Institute's vision, mission and objectives are communicated to all stakeholders. Institute prepares the institute calendar in line with SPPU academic calendar which includes curricular, co-curricular, extra-curricular activities planned by various statutory bodies.

Departments have Department Academic Advisory committee (DAAC) represented by faculty members from the department, eminent academicians from reputed institutes, industry representative, alumni and parents to give suggestions regarding planning of curriculum updation and co-curricular and extracurricular activities.

Implementation of curriculum is based on outcome based teaching learning process. Institute has a structured action plan for the effective implementation of the curriculum which is reflected through department academic planner prepared by HODs in line with institute calendar. After allocating teaching load, faculty prepares the course file, teaching plan and Student Information Manual. SIM Contains detailed information regarding all the courses, rubrics, mentoring records, TW policy etc. Faculty strictly adheres schedules generated in teaching plans.

For the effective delivery of curriculum different teaching tools (LCD, PPTs, NPTEL, video lectures etc.) and methodologies (Mini Project, Laboratory Demonstrations, Group Discussion) are used to make the sessions more interactive.

Continuous assessment with respect to practical, assignments and tutorial work is done on regular basis. Periodically Departmental Meetings are held to discuss and review implementation of the course curriculum. Department prepares list of students having less attendance and corrective measures are taken for improving their attendance through mentoring system.

Content beyond curriculum are identified and covered through Guest lectures, Industry expert lectures, Alumni interactions, seminars and workshops. Industrial visits are arranged with the objective to get practical exposure.

The library is equipped with a wide variety of text books, reference books, Journals, E-journals and Magazines to the students and faculty members. Every department has their own departmental library for immediate reference.

Institute has effective mentoring system which communicate the performance of the mentees to their parents on a regular basis. Institute conducts parents meet in each semester in order to discuss the students' progress.

Schedule of internal, external and project examinations are conveyed to students regularly through notices on notice board & ERP. The implementation and delivery of curriculum is monitored through ERP. Institute has Academic Monitoring committee, who takes care of conduction of regular lectures, student attendance and content delivery through their weekly and monthly reports.

IQAC takes care of effective curriculum delivery through quality initiatives and ensures academic enrichment by conducting academic audit.

Faculty members are actively involved in curriculum design by attending syllabus revision workshops organized by university. The Institute encourages faculty members to attend workshops, seminars, conferences, FDPs, STTP to enrich their skills and competencies. Faculty also Interact regularly with industries to enhance their practical knowledge.

To improve the academic standard institute has its own stakeholder's feedback policy in place.

Feedback taken from the stakeholders are used for the progress of the institution and the feedback regarding the curriculum received from stakeholders and DAAC are summarized and recommendations are communicated to the BOS for curriculum revision.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

1.1.2 Number of certificate/diploma program introduced during the last five years

Response: 0

1.1.2.1 Number of certificate/diploma programs introduced year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
0	0	0	0	0

File Description	Document
Details of the certificate/Diploma programs	View Document

1.1.3 Percentage of participation of full time teachers in various bodies of the Universities/ Autonomous Colleges/ Other Colleges, such as BoS and Academic Council during the last five years

Response: 97.88

1.1.3.1 Number of teachers participating in various bodies of the Institution, such as BoS and Academic

Council year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
33	33	25	18	11

File Description	Document
Details of participation of teachers in various bodies	View Document
Any additional information	View Document

1.2 Academic Flexibility

1.2.1 Percentage of new Courses introduced out of the total number of courses across all Programs offered during last five years

Response: 62.95

1.2.1.1 How many new courses are introduced within the last five years

Response: 503

File Description	Document
Minutes of relevant Academic Council/BOS meetings.	View Document
Details of the new courses introduced	View Document
Any additional information	View Document

1.2.2 Percentage of programs in which Choice Based Credit System (CBCS)/Elective course system has been implemented

Response: 100

1.2.2.1 Number of programs in which CBCS/ Elective course system implemented.

Response: 9

File Description	Document
Name of the programs in which CBCS is implemented	View Document
Minutes of relevant Academic Council/BOS meetings.	View Document
Any additional information	View Document

1.2.3 Average percentage of students enrolled in subject related Certificate/ Diploma programs/Add-on programs as against the total number of students during the last five years

Response: 17.46

1.2.3.1 Number of students enrolled in subject related Certificate or Diploma or Add-on programs year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
599	329	188	178	167

File Description	Document
Details of the students enrolled in Subjects related to certificate/Diploma/Add-on programs	View Document
Any additional information	View Document

1.3 Curriculum Enrichment

1.3.1 Institution integrates cross- cutting issues relevant to Gender, Environment and Sustainability, Human Values and Professional Ethics into the Curriculum

Response:

The institute is affiliated to Savitribai Phule Pune University (SPPU) and the curriculum has integrated the cross-cutting issues such as Gender, Environment and Sustainability, Human Values ,Professional Ethics through the courses like soft skills , audit courses offered (e.g. Professional Ethics and Etiquettes, Humanity, Team Building, leadership & fitness, Cyber Security, Foreign Language-Japanese, Digital and Social Media Marketing, Water Management etc.)

Institute adheres to the admission procedure prescribed by the DTE, Maharashtra for reservation of male and female students. The Institute has a Grievance Redressed cell, Women's cell to handle the various issues like women's rights, safety, and security. Programs are organized at Institute level to train the female candidates in self-defense and development. These activities encompass components for gender. To

learn a way of living a healthy lifestyle, with a unity of mind and body, Institute organizes Yoga and Stress management sessions.

The Institute has a National Social Service (NSS), for developing students' personality through community services. Equal opportunity in participating is given to both male and female students during NSS camp which is arranged in rural areas every year. The institute creates social awareness in students by conducting activities like tree plantation, Swachata Abhiyan, visiting and donating in orphanage homes. Students actively organize and participate in blood donation camp every year.

To reinforce study skills and knowledge of the subject, the Institute follows the mentoring system where one faculty member is allocated to the group of 20 students. It helps in to increase personal level of Confidence and Motivation for weaker students.

To ensure the over-all development of the students, the institute also organizes various cultural and sports activities .

Professional ethics are imbibed amongst students by encouraging them to participate in professional activities like Seminars, Conferences, Workshops, Tech-Fests. Every year a national level students symposium – ‘Quantonium’ is organized by the students .Technical events like Tech-fest Spectrum, Controtech, Maverix, Azionare, Techshetra are actively organized and executed by the students to enhance technical and social awareness among them.

The institute has formed an anti-ragging committee to avoid incidences of ragging either in college or in the hostel. These activities encompass components for human values.

The Institute has active Entrepreneurship Development Cell (EDC) which nurtures the spirit of entrepreneurship. These activities encompass components for employability, research and social needs amongst students.

File Description	Document
Any Additional Information	View Document
Link for Additional Information	View Document

1.3.2 Number of value added courses imparting transferable and life skills offered during the last five years

Response: 29

1.3.2.1 Number of value-added courses imparting transferable and life skills offered during the last five years

Response: 29

File Description	Document
Details of the value-added courses imparting transferable and life skills	View Document
Brochure or any other document relating to value added courses.	View Document
Any additional information	View Document

1.3.3 Percentage of students undertaking field projects / internships

Response: 61.77

1.3.3.1 Number of students undertaking field projects or internships

Response: 976

File Description	Document
List of students enrolled	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

1.4 Feedback System

1.4.1 Structured feedback received from 1) Students, 2) Teachers, 3) Employers, 4) Alumni and 5) Parents for design and review of syllabus-Semester wise/ year-wise

A. Any 4 of the above

B. Any 3 of the above

C. Any 2 of the above

D. Any 1 of the above

Response: A. Any 4 of the above

File Description	Document
Any additional information	View Document
Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management	View Document
URL for stakeholder feedback report	View Document

1.4.2 Feedback processes of the institution may be classified as follows:

A. Feedback collected, analysed and action taken and feedback available on website

B. Feedback collected, analysed and action has been taken

C. Feedback collected and analysed

D. Feedback collected

Response: B. Feedback collected, analysed and action has been taken

File Description	Document
Any additional information	View Document
URL for feedback report	View Document

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1 Average percentage of students from other States and Countries during the last five years

Response: 7.43

2.1.1.1 Number of students from other states and countries year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
116	117	149	144	126

File Description

Document

List of students (other states and countries)

[View Document](#)

Institutional data in prescribed format

[View Document](#)

Any additional information

[View Document](#)

2.1.2 Average Enrollment percentage (Average of last five years)

Response: 52.11

2.1.2.1 Number of students admitted year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
294	267	316	305	417

2.1.2.2 Number of sanctioned seats year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
534	594	654	654	636

File Description

Document

Institutional data in prescribed format

[View Document](#)

2.1.3 Average percentage of seats filled against seats reserved for various categories as per

applicable reservation policy during the last five years**Response:** 36.23

2.1.3.1 Number of actual students admitted from the reserved categories year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
112	108	98	119	116

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

2.2 Catering to Student Diversity**2.2.1 The institution assesses the learning levels of the students, after admission and organises special programs for advanced learners and slow learners****Response:**

The institute has initiated to categorize the learning levels of the beginners through pre-requisite tests. For subsequent years it is classified on the basis of their previous examination results and assessment by individual faculty. Based on these evaluations, students are categorized as slow learners & advanced learners. After a discussion in departmental meetings, their academic requirements are analyzed and distinctive efforts are taken to improve the performance of slow learners. Advanced learners are guided to hone their skills and are inspired to achieve challenging goals in their academic journey.

After admissions, an induction programme is organized to help students adjust to the new environment and inculcate self-awareness, human values, social sensitivity, as they come from diverse backgrounds and thoughts. During Induction Program, Honorable Chairperson of the Institute, Group Director along with industry experts address the students and navigate them to reach their career destination.

An orientation programme is organized which comprises of an introduction to curriculum, academic facilities available, brief presentation of all programmes and the values of ICEM. The Institute's academic system, achievements, placements and career opportunities are also briefed to parents.

An Outdoor Management Training Programme is also conducted to inculcate the leadership and managerial skills to students through various activities.

The Institute monitors the progress of the students and pays personal attention to improve their academics and over all development through mentoring programme. One faculty mentor is assigned to every 20 students, and mentoring sessions are conducted at regular intervals. Based on the interactions, special

activities and necessary reforms are reported to higher authorities by the mentor coordinator. Mentor coordinator ensures the fulfillment of the students' requirements and takes the review during the next mentoring sessions.

These mentoring records of the first year students are passed on subsequently to the mentors of the next year.

The Institute conducts the following activities for advanced and slow learners.

• **Activities for Slow learners:**

- Remedial / Make-up classes/ Extra lectures
- Personal Attention in teaching
- Extra efforts in mentoring
- Re-test for improvement
- Extra practical sessions
- Question bank with Model answers
- Solving University question papers
- Mock oral/practical examination

• **Activities for Advanced learners:**

- sponsored to attend symposiums /seminars/conferences
- Opportunity to visit industry & attend various events.
- Scholar Club – Domain Certification Training & Soft skills Training
- Book Bank Facility & Book Club
- Students are sponsored to participate in national level summits and competitions

(Hackathon, Learnathon, SAE SUPRA, STAR BAJA, AVISHKAR etc.)

- Motivation and guidance for higher studies (competitive exams)
- Guidance to IPR
- Participation in incubation cell
- Encouragement to complete advanced courses

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

2.2.2 Student - Full time teacher ratio

Response: 15.05	
File Description	Document
Any additional information	View Document

2.2.3 Percentage of differently abled students (Divyangjan) on rolls	
Response: 0	
2.2.3.1 Number of differently abled students on rolls	
Response: 00	
File Description	Document
Institutional data in prescribed format	View Document

2.3 Teaching- Learning Process

<p>2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences</p> <p>Response:</p> <p>To meet the growing technical demands of the industry and to enhance the professional learning capability of the students, the Institute adheres to the blended learning approach. The focus is not only on curriculum delivery but also ensuring that the knowledge is rightly disseminated amongst the students. The faculties have adopted various active learning methodologies to make the classroom learning interactive and interesting.</p> <p>Student Centric Learning is implemented, keeping in view the changing study patterns of millennial. To enhance the self-learning capacity, application oriented learning and problem solving ability, the following practices are followed:</p> <p>Blended learning:</p> <p>Faculties of ICEM inculcate this learning approach as hybrid teaching methodology. It's a formal educational program that combines the traditional classroom teaching methods with digital media. The faculties provides study material like NPTEL videos, KHAN academy videos which student can watch at their own time.</p> <p>Experimental learning:</p> <p>The faculty members take keen interest in guiding the students to solve the lab assignments and real world problems by performing experiments in the laboratories and workshop, by learning through IVT, workshops and model making etc.</p>
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Experiential learning:

“Experiencing is learning twice” which is practiced in our Institute through experiential learning methods such as: Industrial visits, internships, seminars, presentations, participation and attending various competitions/conferences/summits/technical events/symposiums, Study tours & Site Visits.

Collaborative/Participative Learning:

Students are actively involved and assigned tasks in groups to acquire application oriented knowledge, amalgamation of ideas and develop team spirit by organizing and participating in events like, Techfest, Indira International Innovation (3I) Summit, Smart India Hackathon, Learnathon, Star BAJA, SAE SUPRA, project competitions, design contests, paper presentations and conferences. The participative learning tools such as social media, whatsapp, blogs and special interest groups are widely used by students.

Think Pair Share concept is also implemented to make the student think individually on the given topic, discuss ideas with their partner and share the solution with a larger group. Students interact with their peers for their intellectual discussions, problem solving and grab the concepts quickly through group studies. The Institute provides learning facilities such as reading rooms, digital library and department library.

Case Based Learning:

Industrial problems and business case studies of the current scenario are discussed with the students to make them aware of the causes, effects, results, and consequences.

Design/Product Based Learning:

Real time problems are shared with students to test and evaluate their application of domain knowledge, innovation and technical skills. By developing engineering projects, students learn the different phases of product development life cycle such as need, pre-requisites, analysis, design, simulation, development, testing, implementation and maintenance. They develop hardware, software, structures and manufacture various engineering products for the benefit of the society.

Problem Solving Methodology:

To increase the analytical thinking, decision making and problem solving abilities, the students are provided with various case lets of the business scenario, engineering case studies and applications, company budgets, and annual report of multinational companies and asked to analyze and present in the class.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

2.3.2 Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc.

Response: 100

2.3.2.1 Number of teachers using ICT

Response: 105

File Description	Document
List of teachers (using ICT for teaching)	View Document
Any additional information	View Document
Provide link for webpage describing the " LMS/ Academic management system"	View Document

2.3.3 Ratio of students to mentor for academic and stress related issues

Response: 19.04

2.3.3.1 Number of mentors

Response: 83

File Description	Document
Any additional information	View Document

2.3.4 Innovation and creativity in teaching-learning

Response:

Keeping in view the emerging industry challenges, the Institute is known for its academic excellence along with the professional learning flexibility for nurturing the students and providing enhanced training in advanced technologies. The Institute focusses on inculcating in-depth knowledge of all fields in Engineering as well as imparting knowledge of discipline, teamwork, communication skills and an ability to work with a diverse set of constraints.

The faculty members are deputed to various research conferences, seminars, workshops and STTPs to update their domain knowledge, trends in modern teaching pedagogies and utilization of digital learning platforms.

With the aim of discouraging rote learning our innovative pedagogies are defined to encourage interactive learning, participative learning, self-learning and project based learning. The students are provided with a conducive environment wherein they are allowed to explore the engineering concepts and learn their curriculum through blended learning approach.

Students are also encouraged to deliver seminars, participate in various competitions and industry visits, use online eLearning resources, resolve case studies, and attend mock interviews and present research paper reviews. Smart classrooms are also equipped with educational technologies and help students to implement flipped classroom.

Various activities such as mock interviews, group discussions and case study discussions are performed to provide an exposure towards current critical thinking, innovative creative attitude and self-learning. Students also got an opportunity to visit abroad universities through study tour and acquired global experience.

The innovation and creativity in teaching learning is implemented through the methods as shown in the diagram on the link mentioned below

https://drive.google.com/open?id=1qsoxX-zbu02VK5p_wOv8u4hVtLZxebY1

All the above mentioned innovative methods in teaching and learning ,not only improves the subject knowledge of the students but also develops their problem solving ability , self-learning capacity, Adaptability, Diligence, Managerial skills, Entrepreneurship skills, soft skills, humanitarian spirit and creates a responsible citizen of the country. This is endorsed by their academic merit, career progression and quality placements.

File Description	Document
Any additional information	View Document

2.4 Teacher Profile and Quality

2.4.1 Average percentage of full time teachers against sanctioned posts during the last five years

Response: 102.72

File Description	Document
Year wise full time teachers and sanctioned posts for 5 years	View Document
List of the faculty members authenticated by the Head of HEI	View Document
Any additional information	View Document

2.4.2 Average percentage of full time teachers with Ph.D. during the last five years

Response: 6.45

2.4.2.1 Number of full time teachers with Ph.D. year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
09	08	06	08	08

File Description	Document
List of number of full time teachers with PhD and number of full time teachers for 5 years	View Document
Any additional information	View Document

2.4.3 Teaching experience per full time teacher in number of years

Response: 9.59

2.4.3.1 Total experience of full-time teachers

Response: 1007

File Description	Document
Any additional information	View Document

2.4.4 Percentage of full time teachers who received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the last five years

Response: 8.16

2.4.4.1 Number of full time teachers receiving awards from state /national /international level from Government recognised bodies year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
06	02	01	01	00

File Description	Document
Institutional data in prescribed format	View Document
e-copies of award letters (scanned or soft copy)	View Document
Any additional information	View Document

2.4.5 Average percentage of full time teachers from other States against sanctioned posts during the last five years

Response: 40.12

2.4.5.1 Number of full time teachers from other states year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
66	51	46	39	32

File Description	Document
List of full time teachers from other state and state from which qualifying degree was obtained	View Document
Any additional information	View Document

2.5 Evaluation Process and Reforms

2.5.1 Reforms in Continuous Internal Evaluation(CIE) system at the institutional level

Response:

The institute adheres to the reforms introduced by the university time to time.

Reforms in UG Engineering:

University had marks based evaluation system till 2012 pattern, which has been revised to choice based credit system (CBCS) from 2015. This CBCS system is an initiative of University Grants Commission which enhances and promotes educational liberalization of existing conventional higher education models and increases learning flexibility.

The Continuous Internal Evaluation (CIE) policy of each department is decided by the HOD, academic coordinator and faculty members of the respective subject. In 2012, syllabus pattern completion of experiments had a weightage of 15 marks, overall performance of the students in internal tests, attendance, assignments, submission, presentations/Group Discussions/case studies / paper publications and Mock viva were considered.

In 2015 syllabus pattern continuous internal evaluation parameters weightage were revised and completion of experiments was given 10 marks weightage and additional parameters such as timely submission of journals, academic achievement of students and other contributions to department.

Project evaluation consists of domain knowledge, scope of project, problem solving ability, communication skills, presentation skills. Continuous internal evaluation of project includes 10% for problem statement and its relevance, 20% for reviews, 20% for documentation, 10% regularity and reporting, 30% for implementation & interfacing and 10% for publications & participation in competitions.

In Mechanical Sandwich, students attend internship during third year second semester & final year first semester. This Internship is evaluated on the basis of in-plant summary report (LOG BOOK) submitted by the student. The parameters of evaluation are student's daily/weekly/monthly learning report and attendance report submitted by the industry guide on the basis of home assignments, industry project related tasks allotted to students etc.

PG courses:

In ME 2013 Pattern, out of 100 marks for each theory subject 50 marks are set and assessed internally by the institute and remaining 50 marks are set and assessed by the university. CIE is carried out on parameters such as survey paper, Subject assignment submissions, internal Test results, Open book test results & presentations/ seminars allotted to students etc.

In MCA as per 2012 pattern, out of 100 marks for each theory subject 30 marks are set and assessed internally by the institute and remaining 70 marks are set and assessed by the university. Internal evaluation is based on attendance, assignments, presentations, internal tests etc. In project, 200 marks were allotted for internal assessment and 300 for external assessment in the VI semester. In 2015 reforms took place and according to CBCS pattern, 100 marks are allotted for internal assessment in V semester and 150 marks are allotted for internal assessment in VI semester. 250 Marks are allotted for external assessment in the VI semester.

In MBA as per 2013 pattern, out of 100 marks for each theory subject 30 marks are set and assessed internally by the institute through assignments, tests, case studies , regularity and 20 marks are assessed through online examination by the university and remaining 50 marks are set and assessed by the university through theory examination.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

2.5.2 Mechanism of internal assessment is transparent and robust in terms of frequency and variety

Response:

The Institute has developed a transparent and robust mechanism of internal assessment. The institute closely monitors & strictly evaluates the performance of students at regular intervals. Continuous Internal Evaluation (CIE) comprise of unit tests / online tests / open book tests, practical assignments, mock practical, timely completion of experiments and attendance. Outstanding students are encouraged with additional credits for their achievements in competitions, seminars and conferences.

For the practical subjects, grades/marks of the respective experiments are conveyed to the students during their practical sessions. Students are permitted to improvise their performance by redoing the experiment, if they have scored low grade/marks. The continuous internal evaluation status and monthly performance of the students are conveyed to their parents by mentors.

Seminar & Project evaluation is continuous & rigorous process for UG as well as PG. Timely progress reviews are recorded for each student based on their problem understanding, topic selection, design & development, presentations, domain knowledge, additional skills/efforts taken, final results, regularity and research publications.

Mechanical sandwich students one year internship in the Industry is monitored meticulously by both college guide and industry guides. The logbook comprise of attendance record, daily learning report and weekly summary which is duly checked by the company guide and monthly reports are scrutinized and evaluated by the college guide and Head of the Department. Additional weightage is given for the special training or relevant seminar attended.

Continuous Assessment for PG students is done strictly by adhering to any of the evaluation methods such as written test, assignment, seminar, survey paper, research publication in reputed journals and mini project.

All the above mentioned mechanism of internal assessment is conveyed to the students in the following ways:

- Department planner consists of the schedule of all internal tests and project reviews are communicated to students through notices and Student Information Manual (SIM).
- First year students are briefed about the continuous internal evaluation system during the orientation program and subsequently in lectures by the respective faculty members in class room.
- From second year onwards the term work policy of each department which comprise of Continuous Internal Evaluation parameters are communicated to the students at the beginning of the semester through notices, ERP and during mentoring sessions.
- The assessment of all tests and assignments are done immediately and discussed with the students.
- Results of online examinations, in-semester examinations are discussed with the students during mentoring session and necessary guidance is provided for further improvement in their academics.
- The results of summative assessment and internal assessment are informed to the parents during parents teachers meet every semester.
- Continuous Internal Evaluation marks are maintained by the faculty and shown to the students. In case of any discrepancy raised by the student, corrective measures are taken by the concerned teacher.

Remedial lectures are conducted for the backlog students and retests are conducted for the students who scored less in the internal tests and practicals.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

2.5.3 Mechanism to deal with examination related grievances is transparent, time-bound and efficient

Response:

The Institute has taken efforts to establish a well-defined, transparent examination system. The institute has established an examination section and appointed a College Examination Officer (CEO) to implement the examination systems and procedures effectively as per the directives of SPPU. The CEO communicates with the exam coordinator of each department for all activities related to examination.

All notices regarding examinations are informed to students via digital / hard notice boards, ERP & announcements in class. The examination section resolves the grievances related to name correction, result withheld, change in time tables, change of electives, barcode issues, provisional admission issues, online internal marks entry issues and carry forward of In-semester/SE online examination marks within the time frame in coordination with University Exam section efficiently. The examination section also resolves academic, non-academic, grievances related to assessment, victimization, attendance, Exam fees etc.

Redressal of Grievance for Internal Assessment:

The formative assessment (internal evaluation) marks of students are displayed on the notice boards by all departments. The students are informed to report to the concerned with in three days of the display of notice if they have any grievance. An aggrieved student reports the problem to respective HOD. The HOD resolves the issue in consultation with the concerned teacher, mentor and exam coordinator.

Redressal of Grievance for External Assessment:**Online examinations:**

During on line examination, if any student finds uncertainty in question, like incorrect options, insufficient data, repeated options, students can mark it as invalid question. University committee members redress the grievance by taking corrective measures & appropriate action.

Theory examinations:

To deal with the grievances related to summative assessment, University invites online application for the photocopy of the assessed answer-books. Notice is displayed by the institute to apply for the photocopies of answer sheets online to university within 15 days of the declaration of the result. After receiving photocopies, if student is not satisfied about the assessment, he/she may apply to university either for rechecking or revaluation through HOD and exam section.

The application is forwarded to the University for Corrective Action and the result is communicated to the Institute and to the student.

Roles & responsibilities of CEO:

- To follow the rules & regulations laid by the university related to examination work.
- To deliver a high quality examination and assessment system i.e. efficient, fair and accessible.
- To ensure that the system is operated in an environment of openness, transparency and accountability.
- Liaise with the university examination office regarding the examination arrangements for students with special requirements.

- To make the arrangements of convocation ceremony.
- Responsible for conducting all online, in-semester and term-end university examinations as prescribed by University.
- To provide examination materials for the college level Examinations.
- To determine the procedure for the conduct and supervision of examinations.
- To designate responsibilities to all college staff for examination work.
- To issue the University result to respective department.
- To determine procedure to enable the review & appeal for the results of examinations at the request of candidates.
- To charge & collect fees of examinations.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

2.5.4 The institution adheres to the academic calendar for the conduct of CIE

Response:

The Institute follows the almanac provided by the University for All Academic Activities. The institute prepares its calendar before the commencement of the semester in line with university's academic calendar. The calendar outlines the commencement and end dates of teaching, dates for unit tests, in-semester, online phase and end-semester examinations, project reviews, Practical – Oral examinations etc.

Every department in turn prepares its academic planner in line with the Institute calendar which includes the schedule of all continuous internal evaluations. Mock practical examinations and schedule of project reviews are reflected in the department academic planner.

The faculty members prepare the student information manual (SIM) which includes the department planner that contains the schedule of CIE. The duly approved SIM is shared with the students before the commencement of lectures.

The conduction of CIE as per the department planner is reviewed and follow up is taken by the HOD in the department meetings periodically.

The academic monitoring committee In-charge takes periodic review of each department in order to ensure about CIE related activities mentioned in academic calendar are carried out as per the schedule

Project work of the PG students are continuously evaluated through seminars and regular project review presentations as per the schedule mentioned in the department planner. On the basis of continuous internal evaluation, project term work marks are allocated to the students.

Mechanical sandwich Engineering students undergo one year in plant training in Industry from third year second semester to Final year first semester. The students maintain the log book of their everyday activity

performed at industry which is duly monitored by the internal guide of the concerned industry. The periodic reviews of the students' logbook are assessed as per schedule in the department.

Thus, the institute adheres to the academic calendar for conduct of CIE and all other activities during the semester.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

2.6 Student Performance and Learning Outcomes

2.6.1 Program outcomes, program specific outcomes and course outcomes for all programs offered by the Institution are stated and displayed on website and communicated to teachers and students

Response:

Every department has clearly identified Program Educational Objectives (PEO), Program Specific Outcomes (PSO) and Program Outcomes (PO) by collecting the views of Internal and External stakeholders. Head of the department and teachers discussed POs and framed PEOs & PSOs of their program considering the Vision and Mission of the department. The POs define the abilities of the students of that program expected at the time of graduation and COs are the learning outcomes that the students acquire at the end of each course.

Every course has its own learning outcomes defined by the university in the curriculum and adopted by the institute. Course Outcomes which are not defined in the syllabus of the university are prepared by the respective subject teacher along with domain experts as per of objectives mentioned in the university syllabus.

The Program outcomes and Course outcomes of the department are disseminated to internal and external stakeholders through the following ways:

- **Institute web site**
- **HOD cabins**
- **Notice Boards**
- **Department Library**
- **Department Laboratories**
- **Course File**
- **Student Information Manual(SIM)**
- **ERP (verifer)**

The staff members are therefore well-informed of these outcomes before the commencement of lectures. The course planner of each subject is prepared according to the program outcomes & course outcomes. The learning outcomes of each subject are also informed to the students by the teachers at the beginning of

every academic year during the introductory lecture of respective course and also during lecture delivery. The copies of the syllabi are kept in the college and department library for students and also shared through the ERP.

All newly admitted first year students and their parents are briefed about the institute's vision, mission and program objectives in the Induction Programme.

The faculty of every subject explains course objectives, evaluation pattern, marking scheme etc. to the students during orientation programme and in class during the commencement of semester. A soft copy of student information manual comprising course objectives, course outcomes syllabus, Lecture planner, practical/tutorial planner, question bank, home assignments, list of experiments & university previous question papers are also shared with the students.

File Description	Document
COs for all courses (exemplars from Glossary)	View Document
Any additional information	View Document
Link for Additional Information	View Document

2.6.2 Attainment of program outcomes, program specific outcomes and course outcomes are evaluated by the institution

Response:

Teaching, Learning and Assessment strategies of the institute are structured to facilitate the achievement of the learning outcomes. Institute ensures the achievement of these learning outcomes by planning, organizing and implementing various activities such as academic, co-curricular and extra-curricular activities that help to achieve the stated graduate attributes.

The PEOs are in tune with the Vision & Mission of the departments. The PSOs are stated to describe the prospect of the professional bodies and the society.

Course Attainment:

Attainment of the course outcomes is measured through direct attainment and indirect attainment.

Direct Attainment of CO = 30% of CO attainment through formative assessment tools + 70 % of CO attainment through summative assessment tools.

Indirect Attainment of CO = Course Exit Survey

Overall attainment of CO = 70% CO attainment from Direct method + 30 % of CO attainment through Indirect method

1. Direct attainment:

Direct attainment of the Course Outcome is assessed through the evaluation system for each course which is the combination of formative and summative assessment.

1.1 Formative assessment:

It measures the attainment of the outcomes through the continuous internal evaluation tools as per the need of the course.

- Unit test/Practice test
- Assignments/Tutorials
- Seminars/Presentation
- Group discussion
- Case study
- Mock interviews
- Open book test
- Online test
- Industrial Visits
- Quiz
- Mini Project

The faculty maintains the students' performance records of all activities held throughout the semester with reference to all above assessment tools.

1.2 Summative Assessment:

Summative Assessment is the attainments of the theory and practical examinations conducted by the University as per the structure of curriculum. The result of these theory (Online Phase Examination, In-Semester Examination & End Semester Examinations) and Practical examinations of the students are considered to calculate the direct attainment level.

2. Indirect Attainment:

The course exit survey for each course is taken at the end of the semester to assess the indirect attainment of the course outcomes.

Programme Outcome Attainment:

Each CO is mapped with certain POs to evaluate the attainment level of POs which depends on correlation between CO-PO i.e. weak, good or strong. It is required to compute the attainment levels for PSOs in addition to measuring the attainment of POs.

PO attainment = Overall CO attainment × PO mapping factor

Overall Direct PO Attainment = $\frac{\text{Sum (Overall CO attainment X PO mapping factor)}}{\text{Sum (PO mapping factor)}}$

Overall attainment of PO = 80 % PO attainment from direct method + 20 % PO attainment from indirect method

Direct Attainment:

The result of CO attainment is used to evaluate the direct attainment of the Programme Outcomes (PO).

Indirect Attainment:

For determining indirect attainment of POs, Following methods are used:

- Program exit survey
- Guest lecture,
- Industry visits
- Workshops

Rubrics are the indirect assessment tool used to measure the attainment of PO where there is no direct evaluation method available.

The feedback obtained from alumni and recruiters will be considered for the indirect assessment of the POs and PSOs. The POs/PSOs attainments will be then mapped to the Program educational objectives (PEOs).

For continuous improvement weakly mapped POs and PSOs are observed and action plan along with delivery details will be decided to implement.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

2.6.3 Average pass percentage of Students

Response: 82.84

2.6.3.1 Total number of final year students who passed the examination conducted by Institution.

Response: 338

2.6.3.2 Total number of final year students who appeared for the examination conducted by the institution

Response: 408

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process

Response:

NAAC

Criterion 3 - Research, Innovations and Extension

3.1 Resource Mobilization for Research

3.1.1 Grants for research projects sponsored by government/non government sources such as industry ,corporate houses, international bodies, endowment, chairs in the institution during the last five years (INR in Lakhs)

Response: 14.47

3.1.1.1 Total Grants for research projects sponsored by the non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution year-wise during the last five years(INR in Lakhs)

2017-18	2016-17	2015-16	2014-15	2013-14
0	4.9	1.37	8.2	0

File Description	Document
List of project and grant details	View Document
e-copies of the grant award letters for research projects sponsored by non-government	View Document
Any additional information	View Document

3.1.2 Percentage of teachers recognised as research guides at present

Response: 2.86

3.1.2.1 Number of teachers recognised as research guides

Response: 3

File Description	Document
Any additional information	View Document

3.1.3 Number of research projects per teacher funded, by government and non-government agencies, during the last five year

Response: 0.11

3.1.3.1 Number of research projects funded by government and non-government agencies during the last five years

Response: 13

3.1.3.2 Number of full time teachers worked in the institution during the last 5 years

Response: 613

File Description	Document
Supporting document from Funding Agency	View Document
Any additional information	View Document
Funding agency website URL	View Document

3.2 Innovation Ecosystem

3.2.1 Institution has created an ecosystem for innovations including incubation centre and other initiatives for creation and transfer of knowledge

Response:

Ecosystem for innovation is useful for creating and maintaining 'research conducive environment' and promoting research and innovation culture amongst the faculty and the students. In view of this to promote the research related activity an additional responsibility has been assigned to one of faculty as Dean Research and Development. Under his guidance a cell is formed which comprises one faculty from each department to support research activity in the Institute. A research policy manual has been framed at Institute level.

The institute has taken the following initiatives in context with research and innovations:

1. The institute supports the faculties to attend National/ International conferences, Workshops, Seminars, FDPs in the form of deputation and through financial support based on the research policy.
2. Faculties are encouraged to submit Research proposals at various funding agencies.
3. Every year, the Institute organizes conferences in various research areas. Institute also encourages staff and students to participate in the conferences conducted outside. Students have also participated in the events like SUPRA, ALCHEMIST and Smart India Hackathon. For the same the financial support as well as laboratory/workshop facility is made available for 24 X 7.
4. A research-oriented sessions are organized under the canopy of 'Sandhodhana' started from academic year 2016-17 and consists of a series of Research Workshops for the faculty members. Sessions were delivered by the renowned speakers with a huge and wide expertise in the field of research.
5. The institute has organized the Innovation Summit (Indira International Innovation Summit) since last ten years with an aim to promote the Industry – Academia linkages to enable the institute to emerge as a Leading technical manpower source. The Innovators, Entrepreneurs and senior leaders from companies of repute engages sessions for the students and they are recognized and awarded for their contribution in their respective fields.
6. A series on business incubation (Anveshna Series) has been started from academic year 2017-18 for the students. Till now, four sessions have been conducted namely, on innovative ideas, working in groups, innovation practices and on patenting for students and staff.

7. The institute has organized three IPR workshops so far.
8. Library facility is made available to access reference books and Journals till late night.
9. The Institute has encouraged students to develop a mobile app on societal issues by providing required funding.

The institute has started Incubation Cell. The aim of the cell is to create physical infrastructure and support systems necessary for business incubation activities, where students can work on ideas and transform them into entrepreneurial ideas. It aims at providing necessary services like access to high end machines, high-speed internet and required technical assistance.

The outcome of all these activities is reflected in number of research publications in journals and conferences by students and faculties. Students are participating in different inter institute, university level and national level competition such as 'Avishkar', Hackathon. As far as patents are considered, four patents have been filed.

So far Institute has received twelve BCUD research grants from university.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

3.2.2 Number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the last five years

Response: 79

3.2.2.1 Total number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
16	14	11	12	26

File Description	Document
Report of the event	View Document
List of workshops/seminars during the last 5 years	View Document
Any additional information	View Document

3.3 Research Publications and Awards

3.3.1 The institution has a stated Code of Ethics to check malpractices and plagiarism in Research**Response:** Yes

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

3.3.2 The institution provides incentives to teachers who receive state, national and international recognition/awards**Response:** Yes

File Description	Document
e- copies of the letters of awards	View Document
Any additional information	View Document

3.3.3 Number of Ph.D.s awarded per teacher during the last five years**Response:** 0

3.3.3.1 How many Ph.Ds awarded within last five years

3.3.3.2 Number of teachers recognized as guides during the last five years

Response: 3

File Description	Document
URL to the research page on HEI web site	View Document
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc	View Document
Any additional information	View Document

3.3.4 Number of research papers per teacher in the Journals notified on UGC website during the last five years**Response:** 1.6

3.3.4.1 Number of research papers in the Journals notified on UGC website during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
57	53	50	27	09

File Description	Document
List of research papers by title, author, department, name and year of publication	View Document
Any additional information	View Document

3.3.5 Number of books and chapters in edited volumes/books published and papers in national/international conference proceedings per teacher during the last five years

Response: 2.08

3.3.5.1 Total number of books and chapters in edited volumes / books published, and papers in national/international conference-proceedings year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
116	60	40	17	22

File Description	Document
List books and chapters in edited volumes / books published	View Document
Any additional information	View Document

3.4 Extension Activities

3.4.1 Extension activities in the neighbourhood community in terms of impact and sensitising students to social issues and holistic development during the last five years

Response:

The institute is located near Parandwadi Village. Hence there is lot of scope for the institute to arrange various extension activities for the students in rural areas, so that society will get benefitted and at the same time the students will be aware of the problems faced by the rural community which stays in the neighborhood.

The institute believes in giving back what it has gained from the communities in which we live, work and play. The students of the Institute come from both rural and urban areas. The students interact with the neighborhood community during the extension activities organized by the institution. Institute has conducted various social and technical activities in the neighborhood through NSS camps and other programs.

For extension activities, the students are visiting nearby villages, schools, old age home, etc. and they learn to interact with people from all lifestyles. Various extension activities includes:

- **Anti-Superstition Rally:** Institute organizes anti-superstition rally in the village to create awareness of losses due to superstition activity.
- **Swachha Bharat Abhiyan:** Institute organizes Swachha Bharat Abhiyan in campus as well as village. Students not only motivate the villagers about cleanliness by various poster presentation, but also they clean the area themselves.
- **Blood Donation Camp:** Blood donation camp has been organized to promote the students as well as villagers to help the others by donating blood.
- **Digital India Awareness Campaign:** Students from NSS provide the education to the villagers like, use of internet banking, uses of bank app, how to transfer money from mobile to mobile in line with the 'digital India' initiative. They also provide information about the Government website and apps.
- **Health Checkup Camp:** Institute organizes Health Checkup Camp to create awareness of health issues and give the consultation how to minimize.
- **Tree Plantation:** Tree plantation drive has been organized to establish bond with the nature.

Institute has launched a noble initiative namely 'Indira Sustainable Initiative' (ISMI) in November 2015. It was decided to help children of the farmers who commit suicide due to drought, by sponsoring their education in undergraduate and post graduate programs of IGI campuses as we feel that farmer's children deserve better opportunity to live and build their career.

The students has developed an app, which locates the nearby toilets on the map. This need was identified by the students when they went for 'Swachha Bharat Abhiyan'. The institute has supported this activity by providing the necessary funds.

The institute considers the impact of all extension activities on the local community and hence the various social events and programs are very much reflects our commitment to operate in a social responsible manner. The outcome of this activity is awareness amongst the students about the social commitments and responsibilities. This leads to improvement of their qualities such as time management, communication skills, event management, account management and the leadership. It helps the students to become good citizen of India.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

3.4.2 Number of awards and recognition received for extension activities from Government /recognised bodies during the last five years

Response: 49

3.4.2.1 Total number of awards and recognition received for extension activities from Government /recognised bodies year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
13	09	11	08	08

File Description	Document
Number of awards for extension activities in last 5 years	View Document
e-copy of the award letters	View Document
Any additional information	View Document

3.4.3 Number of extension and outreach Programs conducted in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., during the last five years

Response: 59

3.4.3.1 Number of extension and outreach Programs conducted in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
14	12	11	11	11

File Description	Document
Reports of the event organized	View Document
Number of extension and outreach programs conducted with industry,community etc for the last five years	View Document

3.4.4 Average percentage of students participating in extension activities with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the last five years

Response: 70.91

3.4.4.1 Total number of students participating in extension activities with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
1257	1217	1252	1175	1273

File Description	Document
Report of the event	View Document
Average percentage of students participating in extension activities with Govt or NGO etc	View Document
Any additional information	View Document

3.5 Collaboration

3.5.1 Number of linkages for faculty exchange, student exchange, internship, field trip, on-the-job training, research, etc during the last five years

Response: 655

3.5.1.1 Number of linkages for faculty exchange, student exchange, internship, field trip, on-the-job training, research, etc year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
136	103	159	118	139

File Description	Document
Number of Collaborative activities for research, faculty etc	View Document
Copies of collaboration	View Document
Any additional information	View Document

3.5.2 Number of functional MoUs with institutions of National/ International importance, Other Institutions, Industries, Corporate houses etc., during the last five years (only functional MoUs with ongoing activities to be considered)

Response: 26

3.5.2.1 Number of functional MoUs with institutions of national, international importance, other universities, industries, corporate houses etc. year-wise during the last five years (only functional MoUs

with ongoing activities to be considered)

2017-18	2016-17	2015-16	2014-15	2013-14
10	06	05	04	01

File Description	Document
e-copies of the MoUs with institution/ industry/ corporate house	View Document
Details of functional MoUs with institutions of national, international importance, other universities etc during the last five years	View Document
Any additional information	View Document

Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

4.1.1 The institution has adequate facilities for teaching- learning. viz., classrooms, laboratories, computing equipment, etc.

Response:

The Institute is sufficiently well equipped in terms of physical infrastructure for existing academic programs and administration as per norms of AICTE, DTE and SPPU. The Institution has an optimistic approach to maintain a policy of catering to the ever changing needs of the learners.

Institute is having separate administrative and academic building. Administrative building includes administration office, library, counselling room, conference room, pantry, hostel, gym, canteen and mess. Academic building has 30 ICT enabled classrooms having sufficient and ergonomically designed furniture. The campus also accommodates 56 well equipped Laboratories as per the curriculum. The institute has 7 tutorials rooms, adequate drawing hall and central computing facility with adequate number of computers for enhancement of teaching learning process. Every department has adequate staff cabins and staff rooms. Institute is also equipped with exclusive language lab with all multimedia enabled desktops and headsets.

The institute has 5 seminar halls equipped with audio and video system, one of which is enabled with Video conferencing facility and seating capacity of more than 200 persons. Common room for boys and girls are also available. Lift and ramp facility are available in campus.

In addition to academic and administrative buildings, exclusive workshop is constructed. Workshop is equipped with foundry, welding, machine, fitting and carpentry shops.

The central library stacked with 29206 books is provided in the institute. The library has 87 journals and 10 magazines in different specialized areas. It is having separate reference book section consisting of Handbooks, IS Codes, Encyclopedia and special donated books. It is also equipped with a reading room having capacity of 150 individuals and reprographic facility for students. SLIM 21 (3.5 version) software is utilized in library. Digital library section is equipped with 12 PC with dedicated 100Mbps internet connectivity, e-resources like e-books, e-journals (Database), NPTEL Videos which provides support to teachers and students. All departments have their own departmental library. Separate reprographic facility and stationary store are provided in academic building.

Institute has dedicated training and placement cell and incubation center equipped with high end computing facilities. Institute has separate examination control room for smooth conduction of university examinations. Separate place is available for smooth functioning of IQAC. Institute is having counselling room to guide the students.

Institute has an exclusive IT Support cell to handle IT infrastructure. The institute has 760 Computers connected in LAN with high bandwidth seamless internet connectivity and adequate peripherals. Entire campus is Wi-Fi enabled with internet speed of 100Mbps. Faculty members use ICT tools and assess student's performance through online and offline tests. Total 10 system software and 29 application software, facilitates students to enhance their practical and technical skills. The performance of the network is improved with the help of high end HP and Dell servers. RUCKUS wireless accesses point with

RUCKUS ZONEDIRECTOR provides high speed connectivity and seamless wireless environment throughout campus. The entire campus is under camera surveillance with 66 Cameras and 30TB of storage.

The institute have ERP system to monitor academic and administrative activities.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

4.1.2 The institution has adequate facilities for sports, games (indoor, outdoor),gymnasium, yoga centre etc., and cultural activities

Response:

The institution has a fully competent and qualified physical director to train the students to participate in both indoor and outdoor events conducted by institute / university / state. A separate budget is allocated for sports activities.

The institute has following facilities for sports, games (Indoor, Outdoor), Gymnasium, Yoga Centre etc.

1. Sports (indoor/outdoor)

To develop sound mind, sound body, physical fitness, team spirit and leadership qualities among students, the institute encourages sports activities.

Accordingly institute has spacious ground for outdoor sports such as Cricket, Kabaddi, Football, Volleyball, Handball, Basketball etc. and adequate facilities for indoor games such as Table Tennis, Badminton, Chess, and Carom are available.

2. Gymnasium

Fully equipped gymnasium with dedicated Gym Instructor is available in campus. Gymnasium remain open daily four hours in morning and evening. Facilities available in gymnasium are adjustable bench press and dumbbells, chromium plates, barbell rods and plates, cross trainers, digital treadmill machines etc.

Institute organizes Inter College and Intra College competitions for Student's empowerment in sport area. Students have grabbed awards and prizes in the various competitions at University, State and National level sports events. Some of the prominent events where institute grabbed prizes includes All India Inter University rifle shooting competition, Inter-zonal Boxing Competition and Inter-zonal Water Polo Competition etc.

Institute organizes annual sports competition (Avishkar) and winners are felicitated with trophies, certificates and medals. Institute has successfully organized SPPU sponsored Pune District Inter collegiate

Fencing and Power Lifting competitions.

3. Yoga activities

Institute regularly conducts yoga sessions. Importance and the benefits of yoga are explained by the yoga experts during their sessions. Institute celebrates 'International Yoga Day' every year.

4. Cultural activities:

As the cultural activities are the integral part of the study, the students are encouraged to participate in various cultural activities inside and outside the campus. The students actively participate in cultural activities like singing, dance, drama, skit, fashion show etc. during the annual social gathering (AVISHKAR) organized by the Institute every year. Each department has their students association through which different events like welcome, farewell and other activities are conducted which provide a platform to the students to showcase their cultural talent.

Independence Day, Republic Day, National youth day, Women's day, National icon's day, Ganesh Festival, Durga Puja, Dashahara and Dahi Handi are also celebrated by students actively.

Institute provides space for 'Students Corner', where students display their creations and innovative ideas in the form of sketches, drawing, paintings, poems, articles etc.

Faculties are also encouraged to participate in cultural activities such as drama, dance, and singing.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

4.1.3 Percentage of classrooms and seminar halls with ICT - enabled facilities such as smart class, LMS, etc

Response: 100

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 35

File Description	Document
Number of classrooms and seminar halls with ICT enabled facilities	View Document
any additional information	View Document
Link for additional information which is optional	View Document

4.1.4 Average percentage of budget allocation, excluding salary for infrastructure augmentation during the last five years.**Response:** 49.45

4.1.4.1 Budget allocation for infrastructure augmentation, excluding salary year-wise during the last five years (INR in Lakhs)

2017-18	2016-17	2015-16	2014-15	2013-14
414.68	83.75	359.10	898.26	496.54

File Description	Document
Details of budget allocation, excluding salary during the last five years	View Document
Audited utilization statements	View Document
Any additional information	View Document

4.2 Library as a Learning Resource**4.2.1 Library is automated using Integrated Library Management System (ILMS)****Response:**

Library is automated through utilizing library Management Software SLIM21 (Version 3.5). College Library is equipped with OPAC (Online Public Access Catalog). Integrated Library Management System is used to manage different functions of library. Library collection can be searched on Intranet using SLIM21 OPAC module. This software has modules like Acquisition, Cataloguing, Circulation, and Serial Control. Acquisition module and cataloguing module is utilized for generating accession register reports, adding bulk student's record, updating item, lending policy and its status. Circulation module has books issue, Return and reserve options. Various report such as loan borrower, item inventory status, Circulation status summary, item transaction and operator wise transactions can be generated in this module. SLIM21 helps for catalogue books, e-books, articles, reports, serials publications that contain information vital to the institute. SLIM21 cataloguing adheres to popular international standards. Similarly, library barcodes are also generated through this module making cumbersome library work simpler, effective, and time saving.

The library has online e-Journals subscription for both staff and students. Institute has created a FTP server of 4TB storage for NPTEL video lectures and e-books, so that faculties and students upgrade themselves in respective courses.

Name of ILMS Software	SLIM 21
Nature of automation	Fully

Version	3.5
Year of Automation	2017-18

Library at a glance	
Total number of Books	29206
Total Number of Titles	7186
Print Journals	87
E- Journals	275
NPTEL Video lectures	286
E -books	1050
IRC CODE	64
IS CODE	128
Newspapers	29
CDs/DVDs	1300
Library Staff	5
Cost of Books(Total)	Rs 10620913
Subscription for Journal	Rs 938629

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

4.2.2 Collection of rare books, manuscripts, special reports or any other knowledge resources for library enrichment

Response:

The college library emphasizes on maximum utilization of reference books, competitive examination books by students and faculties to ensure the quality teaching learning process. Hence institute has augmented the library with number of reference books, competitive examination books(GRE,TOEFL,GATE,ILTES,IAS,UPSC,MPSC) , textbooks, books beyond the text, journals, magazine etc. The rare/donated books available in library are from different genres such as inspiring stories, history, philosophy, literature etc. The library has taken advantage of e-resources like e-books, e-journals (Database), NPTEL videos related to subject and curriculum to enrich the knowledge base of both faculties and students.

Collection of rare/donated books, manuscripts, special reports or any other knowledge resources for library enrichment

Title	No of Title Available	No of Copies Available
Reference Books	181	317
Competitive Exam Books	50	118
Rare/Donated Books	684	1019
Book Bank	460	1714

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

4.2.3 Does the institution have the following:

- 1.e-journals
- 2.e-ShodhSindhu
- 3.Shodhganga Membership
- 4.e-books
- 5.Databases

A. Any 4 of the above

B. Any 3 of the above

C. Any 2 of the above

D. Any 1 of the above

Response: A. Any 4 of the above

File Description	Document
Details of subscriptions like e-journals,e-ShodhSindhu,Shodhganga Membership etc	View Document
Any additional information	View Document

4.2.4 Average annual expenditure for purchase of books and journals during the last five years (INR in Lakhs)

Response: 16.99

4.2.4.1 Annual expenditure for purchase of books and journals year-wise during the last five years (INR in Lakhs)

2017-18	2016-17	2015-16	2014-15	2013-14
2.26	14.61	19.82	19.43	28.82

File Description	Document
Details of annual expenditure for purchase of books and journals during the last five years	View Document
Audited statements of accounts	View Document

4.2.5 Availability of remote access to e-resources of the library

Response: Yes

File Description	Document
Any additional information	View Document

4.2.6 Percentage per day usage of library by teachers and students

Response: 5.7

4.2.6.1 Average number of teachers and students using library per day over last one year

Response: 96

File Description	Document
Any additional information	View Document

4.3 IT Infrastructure

4.3.1 Institution frequently updates its IT facilities including Wi-Fi

Response:

To fulfill norms of AICTE and University the institute has massive IT infrastructure.

The IT facilities include 2 high end servers i.e. HP DL380P Gen8 Server & Dell PowerEdge 2950 for managing the computing facilities such as Active Directory Services for user authentication, SCCM for software deployment, Anti-Virus application and SLIM software for Library Management.

The IT Infrastructure comprises of 760 Desktops,66 Surveillance Cameras, 40 LCD Projectors, 48 Printers and 29 Wi-Fi Access Points connected to 100 Mbps Internet Leased Line via Layer 2 and Layer 3 Networking Switches.

Institute network is secured with Intrusion Protection using latest Unified Threat Management firewall – Sonicwall and associated security policies.

Students and their groups can easily communicate and collaborate with teachers by using their official mail box on Microsoft Office 365 provided by institute.

LAN Connectivity

Connectivity is achieved through 3 Tier Structured LAN architecture.

All the end users are connected through 10/100/1000 base port.

Internet is accessed through Internet Leased Line from TATA Teleservices with bandwidth capacity of 100 mbps and contention ration of 1:1.

Power Backup

Campus is powered by UPS Backup with Diesel Genset (of 320 KVA) support which automatically turns on within 60 seconds.

WI - Fi facility:

- The institute has a 24x7 Wi-Fi facility in the college campus for the student and faculty members.
- Institute campus including hostel (boys and girls) is fully Wi-Fi enabled. 8 Access Points are placed in Boys Hostel & Girls Hostel to achieve seamless connectivity.
- 21 Wi-Fi Access points are connected in Academic and Administration building.

Computing facilities:

- Computer Labs are equipped with software like Matlab, Mastercam, Catia, Auto CAD, Staad Pro, Etabs, Xilinx, Multisim edu & Visual Studio. Database software such as Oracle 11g and My SQL are also installed.
- Institute administration is managed through ERP (Verifier ERP) which is accessed from desktop browser as well as Mobile App.
- FTP server is available 24x7 for data sharing and can be accessed by students and faculties from any computing machine in the campus.
- All the resources are available in the institute for the online examinations of SPPU and other competitive examinations.

Year wise up gradation of IT Facilities is shown in table below

--

Sr.No	Facility	2018-19	2017-18	2016-17	2015-16	2014-2015	2013-2014
1	Desktop Computers	760	747	722	695	695	695
2	Printers	48	48	68	68	68	68
3	Projectors	40	40	35	35	35	35
4	UPS6	6	6	6	6	6	6
5	WiFi Access Points	29	26	26	15	15	15
6	CCTV	66	66	30	8	8	8
7	Firewall	1	1	1	1	1	1

Year wise Internet up gradation

Sr. No.	Financial Year	Student Strength	Internet Upgradation
1	2013-2014	1823	14 MBps
2	2014-2015	1823	14 MBps
3	2015-2016	1914	40 MBps
4	2016-2017	1577	40 MBps
5	2017-2018	1576	40 MBps
6	2018-2019	1445	100 MBps

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

4.3.2 Student - Computer ratio

Response: 2.47

File Description	Document
Any additional information	View Document

4.3.3 Available bandwidth of internet connection in the Institution (Lease line)

>=50 MBPS

35-50 MBPS

20-35 MBPS

5-20 MBPS

Response: >=50 MBPS

File Description	Document
Any additional information	View Document

4.3.4 Facilities for e-content development such as Media Centre, Recording facility, Lecture Capturing System (LCS)**Response:** Yes

File Description	Document
Facilities for e-content development such as Media Centre, Recording facility,LCS	View Document
Any additional information	View Document
Link to photographs	View Document

4.4 Maintenance of Campus Infrastructure**4.4.1 Average Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, as a percentage during the last five years****Response:** 39.32

4.4.1.1 Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component year-wise during the last five years (INR in Lakhs)

2017-18	2016-17	2015-16	2014-15	2013-14
387.97	250.09	326.11	416.14	374.51

File Description	Document
Details about assigned budget and expenditure on physical facilities and academic facilities	View Document
Audited statements of accounts.	View Document

4.4.2 There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.

Response:

Institution has designated Administrative office for maintaining and utilizing physical and support facilities. Maintenance and utilization of academic facilities is taken care by the technical staff of the respective departments. A budget is annually allocated for maintenance of the physical, academic and support facilities of the institute.

Institute has appointed external agencies for maintenance and repair of infrastructure and other facilities. Adequate staff through external agencies are employed to meticulously maintain hygiene, cleanliness on the campus so as to provide a congenial learning environment. Wash rooms and rest rooms are well maintained. Dustbins are placed in every floor.

Housekeeping and 24X7 security facilities are provided at institute campus by external agencies. The gardeners are appointed for overall maintenance and care. EPBX system, air conditioners and water coolers are maintained with the help of external agencies.

In order to provide potable drinking water to the students, fully automated drinking water treatment plant is installed. Water coolers are provided in each department and cleaning is done periodically by the maintenance department.

Institute has appointed technical staff for maintenance and cleaning of laboratory instruments and equipment's on regular basis. The purchase committee handles the repair/maintenance/calibration request appropriately by placing order to the respective external agencies. Facilities in laboratories such as water taps, gas pipelines and electrical fixtures are regularly checked by the respective laboratory and maintenance of the same is done with the help of a technical person. Facilities like Fire extinguishers are checked regularly and their refilling is done before their expiry date. For maintenance of fire extinguishers and generator we have AMCs.

Hostel committee regularly monitors maintenance, hygiene and cleanliness of all facilities in hostel performed by housekeeping staff and supervised by rector. The canteen maintenance committee takes care of quality and other related issues. Waste water from canteen outlets is utilized for watering the plants after treatment. Transportation facility (paid) is provided to staff and the students by external transport operator.

The institute adopts standard established systems and procedures for maintaining the physical, academic and support facilities as mention below:

- **Laboratory Maintenance:**

In case of Repair & Maintenance the concerned laboratory assistant sort out the repair and maintenance. If it is beyond his scope, he reports to Head of Department through laboratory Incharge . With prior approval from Head of Department the concerned laboratory calls for quotations and prepares a comparative statement of 3 or more quotations. This comparative statement along with requisition form is forwarded through HOD to Hon. Principal for approval. After approval from Principal the equipment maintenance work is assigned to third party through Central Store committee. These experts carry out the

repair/maintenance of the equipment. For procurement of new equipments as per budget provisions similar methodology as mentioned above is followed.

- **Library Maintenance:**

In case of binding of the books, bound volume of the journals the maintenance work is carried out by Librarian through external agencies by taking approval from Principal. Maintenance of Hardware is taken care by IT support through e-ticketing & Library automation Software is maintained through AMC by external agency. As per budgetary provisions, purchase of new books, journals, magazines etc. are carried out as per centralized purchase procedure.

- **Maintenance of Computers:**

In case of Repair / Maintenance of computers, peripherals & softwares the concerned laboratory assistants reports to IT support cell through e-ticketing which is sorted out by IT support cell. If it is beyond scope of IT support cell, then the problem is sorted out by the external agency with prior approval from Principal.

As per budgetary provision procurement of hardware needed for maintenance, new computers, peripherals & softwares purchases are carried out as per centralized purchase procedure.

- **Maintenance of Institute Infrastructure:**

The infrastructure maintenance includes maintenance of civil works, electrical maintenance, maintenance of fire extinguishers, STP and WTP, water coolers, garden, plumbing maintenance, gym & sport complex etc. In case of any maintenance, concern department head forwards the requisition to Dy Admin. With approval from Principal Dy Admin gets the work done through respective maintenance team.

If work is beyond scope of maintenance team then Dy Admin calls for quotations and prepares a comparative statement. This comparative statement along with requisition form is forwarded to Hon. Principal for approval. Approved quotation is then forwarded to budget committee for sanction. After sanctioned maintenance or purchase (if any) is assigned to external agency.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

Criterion 5 - Student Support and Progression

5.1 Student Support

5.1.1 Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years

Response: 54.06

5.1.1.1 Number of students benefited by scholarships and freeships provided by the Government year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
901	907	961	957	994

File Description	Document
Upload self attested letter with the list of students sanctioned scholarships	View Document
Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years	View Document
Any additional information	View Document

5.1.2 Average percentage of students benefited by scholarships, freeships, etc. provided by the institution besides government schemes during the last five years

Response: 1.86

5.1.2.1 Total number of students benefited by scholarships, freeships, etc provided by the institution besides government schemes year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
11	34	52	43	26

File Description	Document
Any additional information	View Document

5.1.3 Number of capability enhancement and development schemes –

1. For competitive examinations
2. Career counselling
3. Soft skill development
4. Remedial coaching
5. Language lab
6. Bridge courses
7. Yoga and meditation
8. Personal Counselling

A. 7 or more of the above

B. Any 6 of the above

C. Any 5 of the above

D. Any 4 of the above

Response: A. 7 or more of the above

File Description	Document
Details of capability enhancement and development schemes	View Document
Any additional information	View Document
Link to Institutional website	View Document

5.1.4 Average percentage of student benefited by guidance for competitive examinations and career counselling offered by the institution during the last five years

Response: 64.11

5.1.4.1 Number of students benefited by guidance for competitive examinations and career counselling offered by the institution year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
1271	1172	1200	1022	881

File Description	Document
Number of students benefited by guidance for competitive examinations and career counselling during the last five years	View Document
Any additional information	View Document

5.1.5 Average percentage of students benefited by Vocational Education and Training (VET) during the last five years**Response:** 0

5.1.5.1 Number of students attending VET year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
0	0	0	0	0

File Description**Document**

Details of the students benefited by VET

[View Document](#)**5.1.6 The institution has a transparent mechanism for timely redressal of student grievances including sexual harassment and ragging cases****Response:** Yes**File Description****Document**

Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee

[View Document](#)

Details of student grievances including sexual harassment and ragging cases

[View Document](#)

Any additional information

[View Document](#)**5.2 Student Progression****5.2.1 Average percentage of placement of outgoing students during the last five years****Response:** 55.44

5.2.1.1 Number of outgoing students placed year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
220	210	236	208	272

File Description	Document
Self attested list of students placed	View Document
Details of student placement during the last five years	View Document
Any additional information	View Document

5.2.2 Percentage of student progression to higher education (previous graduating batch)

Response: 1.94

5.2.2.1 Number of outgoing students progressing to higher education

Response: 7

File Description	Document
Upload supporting data for student/alumni	View Document
Details of student progression to higher education	View Document
Any additional information	View Document

5.2.3 Average percentage of students qualifying in State/ National/ International level examinations during the last five years (eg: NET/ SLET/ GATE/ GMAT/ CAT/ GRE/ TOEFL/ Civil Services/State government examinations)

Response: 0.54

5.2.3.1 Number of students qualifying in state/ national/ international level examinations (eg: NET/ SLET/ GATE/ GMAT/ CAT/ GRE/ TOEFL/ Civil services/ State government examinations) year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
3	0	0	0	0

5.2.3.2 Number of students who have appeared for the exams year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
112	126	21	23	19

File Description	Document
Upload supporting data for the same	View Document
Number of students qualifying in state/ national/ international level examinations during the last five years	View Document
Any additional information	View Document

5.3 Student Participation and Activities

5.3.1 Number of awards/medals for outstanding performance in sports/cultural activities at national / international level (award for a team event should be counted as one) during the last five years.

Response: 11

5.3.1.1 Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one) year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
4	2	2	2	1

File Description	Document
Number of awards/medals for outstanding performance in sports/cultural activities at national/international level during the last five years	View Document
e-copies of award letters and certificates	View Document
Any additional information	View Document

5.3.2 Presence of an active Student Council & representation of students on academic & administrative bodies/committees of the institution

Response:

The Students' Council (SC) is the representative body of the entire student community of the Indira college of Engineering and Management, Pune. Mission of student council is to encourage and promote the values that represent good character in all students and build responsible leaders within student's community.

Student council elections are held every year during first term as per the Section 40 (2) (b) of Maharashtra Public Universities Act,1994. Different committees are formed from elected students as per

their interests, communication skills and active participation in various events. Every committee consists of male and female student representatives.

Also students are involved in various academic and administrative committees of the college. Following is the narrative of functions and events conducted by various Committees of the institutions driven by the students:

1. **College Development Committee:** As per the statute of university act two students are nominated in college development committee to actively contribute in college development plan, academic activities, and to make specific recommendations concerned to teaching learning, academic courses and other activities of the institute.
2. **Student affairs committee:** The purpose of student affairs committee is to provide broad oversight and policy guidance to promote a safe and supportive learning environment that encourages students' academic success, growth and personal development.
3. **Grievance committee:** This committee addresses student grievances and maintains harmony and discipline among the students.
4. **Anti-Ragging Committee :** This committee ensures zero ragging incidents in the Institute and also spreads awareness among students against any type of ragging activities.
5. **IQAC:** Two student representatives are a part of IQAC cell to participate in quality initiatives to ensure the effective teaching learning process.
6. **Hostel Committee :** The team holds the responsibility of keeping the check on the hostel infrastructure, discipline, quality of the mess and other housekeeping issues.
7. **Cultural Committee:** 'Rangkarmi' is the cultural group of the students which organizes and promotes various cultural activities throughout the year.
8. **Sports Committee:** This Committee organizes annual sports events. Our students actively participate in various sports in intercollegiate, interuniversity, and state level.
9. **NSS:** This Committee is active in carrying out different social and extension activities such as Blood donation Camp, Swachha Bharat Abhiyan, Yoga day, Tree plantation, Plastic free campus, Road safety awareness, Fire safety awareness etc.

In addition to students representation in academic and administrative bodies various committees (students associations) are functional at respective departments and carry out several activities such as Paper Presentation, Technical Quiz, Robot War, Model Making, Programming, Designing, technical sketching etc.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

5.3.3 Average number of sports and cultural activities/ competitions organised at the institution level per year

Response: 17.4

5.3.3.1 Number of sports and cultural activities / competitions organised at the institution level year-wise

during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
15	12	20	22	18

File Description	Document
Report of the event	View Document
Number of sports and cultural activities / competitions organised per year	View Document

5.4 Alumni Engagement

5.4.1 The Alumni Association/Chapters (registered and functional) contributes significantly to the development of the institution through financial and non financial means during the last five years

Response:

Good alumni relationships bring many aids to both the institution and the alumni. Keeping this in mind, institute seeks to develop everlasting relations with our alumni which in turn will give rise to mutual benefits.

Institute has alumni association as Indira College of Engineering & Management Alumni Association registered with Charity Commissioner, Pune, with Registration No. MAH/ 1582/ 2011/ Pune, dated 26/08/2011. There are structured ways to network and collaborate with alumni of the Institute. The alumni of Institute is guiding and nurturing our students to become engineering, managerial professionals and entrepreneurs. The contribution of the alumni to the institute plays a vital role in the development of the institute.

The objective of the alumni association is to support the institute's goals and strengthen the ties between the Institute and Alumni. Annual alumni meet is organized by the alumni association every year and provides opportunity to the academic heads, faculty and students to interact with the alumni in person and seek guidance in career progression, employment opportunities and current trends in industries.

Alumni engagement is done through emails, Face book, WhatsApp and LinkedIn which helps the institute in enhancing the bond of alumni with their Alma matter. The activities and achievements of the Institute are communicated to alumni on a regular basis by the alumni committee.

Alumni are the members in the College Development Committee, IQAC and Departmental Academic Advisory Committee of the institute. These members get an opportunity to express their views on curriculum enrichment, academic growth and overall development of the institute.

The alumni are invited to deliver guest lectures and also as resource persons for workshops and seminars and conferences on recent trends in technology. They also share their professional experience and motivate

and encourage the students. The alumni actively participate as judges in various technical and non-technical competitions organized at the institute.

Regular interaction with alumni helps the students to know about the employment opportunities and technical advancements in the Industry. The alumni are the Brand ambassadors and significant stakeholder of the Institute who contribute relentlessly for the overall growth of the Institute.

Our alumni groups often support recent alumni and provide a forum to form new friendship and business relationship with the people of similar background. The alumni feedback is solicited during Alumni meet and convocation day. This feedback helps the institute to bring out new reforms in structuring the program and improving the academic system.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

5.4.2 Alumni contribution during the last five years(INR in Lakhs) ? 5 Lakhs

4 Lakhs - 5 Lakhs

3 Lakhs - 4 Lakhs

1 Lakh - 3 Lakhs

Response: <1 Lakh

File Description	Document
Alumni association audited statements	View Document

5.4.3 Number of Alumni Association / Chapters meetings held during the last five years

Response: 10

5.4.3.1 Number of Alumni Association /Chapters meetings held year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
1	5	2	1	1

File Description	Document
Number of Alumni Association / Chapters meetings conducted during the last five years	View Document
Any additional information	View Document
Report of the event	View Document

NVAAC

Criterion 6 - Governance, Leadership and Management

6.1 Institutional Vision and Leadership

6.1.1 The governance of the institution is reflective of an effective leadership in tune with the vision and mission of the institution

Response:

The governance body of our Institution is reflective which thinks strategically for the progress of the Institute, provides timely guidance and support to execute as well as achieve the mission and vision of the Institute.

Vision

The institute envisions to develop itself into a center of academic excellence in the field of Engineering and Management. Education in order to develop future technocrats and managers having right knowledge, skill and attitude to serve the society and industries to fulfill their ever changing requirements.

Mission

- To train our students to become best Engineering Entrepreneurs today, who will lead the organizations successfully into the future; locally, nationally and globally.
- To provide an environment which fosters continuous improvement & innovation with related technical support & facilities to enhance student and faculty effectiveness.
- To provide programs focusing on the holistic development of the individual with the emphasis on personality grooming, physical fitness and a strong sense of social and environmental responsibility.
- To improve logic & scientific reasoning and to develop global mindset amongst the students and prepare them to work in heterogeneous environment.

Objectives

- To establish global leadership in the field of Technology and develop competent human resources for providing service to society
- To Provide Quality Technical Education facilities to every student admitted to the College and facilitate the development of all round personality of the students.

The institute has perspective plan for its development in accordance with its vision.

The governance comprising of Governing Body (GB), Local Management Committee (LMC) now termed as College Development Committee (CDC), Department Academic Advisory Committee (DAAC) and Internal Quality Assurance Cell (IQAC) play significant role in the evolutionary reforms towards positioning the Institute in the preferred list of all stake holders. Faculty and staff are assigned with the roles and responsibility to work in a harmonious environment with complete transparency. IQAC has a well developed process to ensure quality benchmarks of academic activities. The committee also suggests various development programs to faculty members to enhance their domain knowledge, research ability and to equip and race with the emerging technologies evolving in the Industry.

The feedback from stakeholders such as students, parents, alumni and faculty contributes in reforming the policies, systems and plan of execution to attain excellence in academic standards.

Institute maintains the culture of retention of faculty members and hence has an edge of senior and dedicated faculty members for achieving its vision and mission. Institute follows recruitment policies and service condition as per the rules and regulations of regulatory authorities. Fair representation of women faculty members is also ensured at all levels of organization.

Industry academia interactions are developed through MoUs which further enhances entrepreneurship development activities. Institute has developed an incubation centre to help perspective entrepreneur.

The Institution policy considers involvement of staff and stakeholders in decision making. To streamline the same, various committees at Institute level are formed which look after academic and administrative activities which lead to the realization of vision and mission of the Institute

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

6.1.2 The institution practices decentralization and participative management

Response:

Institution has a belief on decentralized system with definite inter-relationships. Governing Body and CDC meetings are held for the future plans and Development of the Institute.

Every department is having its Department Academic Advisory Committee who meets every semester to discuss and provide suggestions for academic enrichment.

The Principal regularly calls the meeting of the head of the departments for planning and execution of academic and administrative activities.

The head of department manages the day to day activities of the department by assigning different portfolio to faculty and keep track of curricular, co-curricular and extra-curricular activities in the department.

The decision suggested by the HOD's & teachers in the department meetings are conveyed to the management through principal. The management considers opinions and suggestions made by the staff.

Administrative staff is involved in fulfilling day to day support services for both students and faculties. This process probes to the institutional practices for decentralization and participative management.

The institute has participative approach by constituting various statutory committees such as Anti-ragging, Internal Compliance, SC-ST, Purchase, Staff Welfare, Women Cell, Alumni Association, Mentoring and also other institutional level committee such as Industry Relation, ERP, Student Affair, Academic Monitoring, Library, Website, Event/Cultural, College Magazine, Professional Body, NSS, IUCEE, Press and Publicity, Parent Meet, Research and Development, NIRF, Examination, Admission, Promotional activity (Admission), Grievance, Hostel, competitive Examination Cell, Entrepreneurship Development Cell are formed which includes faculty, staff and students for the smooth conduction of activities.

Student council and Student association are formulated to ensure the active participation of the students. Following are the practices implemented through participative management.

Case study: Budget Planning and Execution.

The budget cycle consists of different phases such as preparation, submission, approval, execution, audit and evaluation. A Budget committee constituted at the group level of IGI, seeks the operating budget for a financial year from the respective Principal.

The Principal discusses with all HODs to submit a budget proposal by taking into consideration of library books, laboratory equipment, Guest lectures /Workshop, Honorarium to visiting faculty, FDP, R&D expenses, Accreditation expenses, CDP, Student welfare, Industrial visits, Laboratory consumables, Student activities, Repairs & Maintenance, furniture, Computer Hardware & software, office equipment, Journals, Sports Equipment, College Promotion expenses, Membership, activities, Printing, Stationery, Xerox, Newspaper and periodical, etc.

Head of every departments in coordination with their faculty & staff review the available resources, identify the required commodities/equipment's/components along with their market costs and prepare the annual budget of the department and submit to the Principal before the beginning of every financial year.

Principal reviews and finalize the budget in consultation with Sr. accountant and present the proposed budget in front of the budget committee with proper justifications.

The Management and budget committee assess the budget requirement and approve the annual operating budget of every institute.

After the approval from management every head receives copy of the approved budget through Principal for the utilization.

Head of the departments consumes the budget which is duly approved by Principal throughout the year as and when needed.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

6.2 Strategy Development and Deployment

6.2.1 Perspective/Strategic plan and Deployment documents are available in the institution

Response:

The management has perspective plans to convert the Institution's vision into reality. Institute has taken noticeable steps for the development and deployment of perspective / strategic plans.

Perspective Plans:

1. New P.G Course
2. Outcome Based Education
3. Implementing the Enterprise Resource Planning (ERP system)
4. International Innovation summit
5. Incubation center
6. Foreign university Collaborations
7. Centre of excellence
8. Research & development center
9. Getting accreditations (NAAC & NBA)
10. Permanent Affiliation
11. Autonomous status
12. Envisioning the establishment of a private university

Successfully Implemented Example: Enterprise resource planning (ERP)

With the societal push towards green living & to streamline all the academic and administrative processes, Management information system (MIS) for the institute has been implemented in the following phases

In the initial phase, the institute initiated use of People power/Procampus software for HR Module. Myicem (google site based ERP) was developed in the next phase for preserving e-database for academic activities such as Teaching plan, time table, assignments and lab manuals. To share Question banks and conduct online practice test various web application (Academicsforyou, Exam052, constroarena, intelltest etc.) were used.

To augment the quality of education by bringing all systems of the institute under one platform, the decision was taken to implement ERP software which will integrate various functions such as Students, HR, Finance, Academics, Exam, Library, Inventory, Hostel, Communication etc.

Accordingly an Enterprise Resource Planning (Verifer) software has been implemented in the institute. This ERP ensures the effective management of the entire administration, campus operations, and academic management and archives the database of the institute in an efficient way. It helps students, teachers, and the administrative staff to use data in a more organized and structured manner.

Major functions currently carried by ERP software are:

- Students (Online admission, Student Data with uploading of documents, Mobile app)

- HR (Employee data, Profile, Biometric attendance, leave management, salary & TDS)
- Finance (Online fees payment & invoice generation)
- Academics (Course allotment, Timetable, Teaching Plan, Assignment, Attendance, Feedback)
- Library
- Inventory (Requisition, Purchase order, Existing stock)
- Communication (SMS, Alert mails)

This ERP has largely reduced the paper based manual work and manages the faculty, students, course, teaching learning process very efficiently. The timely generation of various reports helps in effective monitoring and controlling. The institute experienced a rise in the efficiency, transparency, and improvement in academic and administration processes through the implementation of this ERP and a step towards green initiative.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document
Strategic Plan and deployment documents on the website	View Document

6.2.2 Organizational structure of the institution including governing body, administrative setup, and functions of various bodies, service rules, procedures, recruitment, promotional policies as well as grievance redressal mechanism

Response:

Institute has well established organizational structure for the smooth functioning of academic and administrative activities, working under the purview of various apex bodies such as AICTE, DTE Maharashtra and SPPU University.

All college activities are governed by **Governing Body** followed by **College development Committee (CDC)** (formerly LMC) as defined under the Maharashtra Public University act 2016.

The Governing body approves recommendations made by the CDC. Governing body comprise of chairperson, four management nominees, AICTE nominees, DTE nominee, university nominee, state government nominee, Principal of the institute as a member secretary and two faculty members.

CDC consist of chairperson of the management or his nominee, secretary of the management or his nominee, Principal of the institute as member secretary, HOD nominated by principal, three elected teachers out of which one shall be women, elected non-teaching employee, four local members nominated by management, IQAC coordinator, president of student council and secretary of student council.

The Principal of the college is the head of the Institute, who deals with all academics and administrative activities. He takes care of the approvals from the management, organizing meetings of Governing Body and College Development Committee as well as liaising between Apex bodies like AICTE, DTE and

University as per requirement.

Vice Principal is appointed to assist Principal in various academic and administrative activities.

A senior faculty of the institute have been appointed as the **Dean R & D** **Dean Industrial relations** to execute R&D and Industry activates respectively

Head of the Departments are taking care of the day to day academic and administrative activities at their respective department.

Institute has **Training and Placement cell** under Dean Talent Development & Corporate Relations to conduct various training for personal and professional development & placement.

Every department has its own **Departmental Academic Advisory Committee** to review the academic system and provide necessary suggestions.

Academic Monitoring Committee is constituted to monitor and enhance the teaching learning process.

Administrative section is headed by the Registrar along with the Senior Executive Officer, Accounts Officer and their team, provides services to students related to scholarship, different fees, academic certificates etc.

Chief Examination officer is appointed for the planning and smooth conduction of examinations of the institute.

IT Support is established under the Associate Director (IT) to take care of establishing and maintenance of the IT infrastructure of whole campus..

Library Section is headed by the Librarian, who manages day to day operations of the library and he is responsible for growth and development of the library.

Sport section is headed by the Director of Physical education to take care of all sports related activities.

Exclusive Administrative Section has been established to administrate and maintain central stores, hostel, campus maintenance, transport, housekeeping, security, gardening, electrical, water supply etc.

Hostel Rector/Warden: Separate wardens are appointed for boys and girls hostel, who are responsible for the discipline, care of students and maintenance of hostel premises.

Service rules,recruitment,promotional policies are followed as per directives from AICTE,UGC and University,which are published in IGI policy manual.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

6.2.3 Implementation of e-governance in areas of operation

- 1.Planning and Development**
- 2.Administration**
- 3.Finance and Accounts**
- 4.Student Admission and Support**
- 5.Examination**

- A. All 5 of the above**
- B. Any 4 of the above**
- C. Any 3 of the above**
- D. Any 2 of the above**

Response: A. All 5 of the above

File Description	Document
Screen shots of user interfaces	View Document
ERP Document	View Document
Details of implementation of e-governance in areas of operation Planning and Development,Administration etc	View Document
Any additional information	View Document

6.2.4 Effectiveness of various bodies/cells/committees is evident through minutes of meetings and implementation of their resolutions

Response:

The guidelines laid down by the Governing body are brought into realization through formulating the College Development Committee (Formerly LMC). The CDC is active in formulating the policies, quality objectives with high values, morals and provides achievable targets for the holistic development of students. They provide timely guidance and support to implement strategies for the growth of the Institute.

Department academic advisory committee (DAAC) has been constituted to review the academic standards of the departments. DAAC is being formed for smooth working of academic & administrative part of department inline with the rapidly changing industry requirements. DAAC members are supposed to perform a brainstorming analysis of the current scenario of the department thoroughly i.e. reflected through several activities like Result Analysis, Guest Lectures, Seminars, Workshops, Group Discussions, Soft-Skills Training, Aptitude Sessions, Value Added Programs, Domain Certifications, Competitive Exam Guidance and Technical Fests and suggest reformatons towards improving the quality of education being

imparted to our student stakeholders.

Our Institute encourages participative management for the progress and provide platforms by forming different statutory and non-statutory committees.

Statutory committee-1) Anti-ragging committee 2) Internal Compliance Committee 3) SC/ST Committee 4)Purchase Committee 5) Staff Welfare Committee 6) Mentoring Committee 7) Women Empowerment Committee 8) Alumini Committee

Non-statutory committee- 1) R&D Committee 2) Examination Committee 3) Grievance Committee 4) Website Committee 5) NSS Committee 6) EDC Cell 7) Student Extra-curricular Committee etc.

Avishkar-

Keeping in view the overall development of the student and to encourage participative learning, every year AVISHKAR week is celebrated which constitutes sports, cultural and Technical events.

Two days are devoted for sports(Outdoor games-Football,Vollyball,Basketball,Kabaddi,Box Cricket. Indoor Games-Carrom, Chess, Table Tennis,Badminton) to enforce the importance of physical fitness, two days are used for showcasing Technical outlook by organizing inter & intra collegiate events under Techfest and one day is used for portrayal of extracurricular skills of the students such as Singing competition,Dancing competition,Drama,Fashion show etc.

AVISHKAR organization and management is done by the Students and for the Students. Different committees of the student are formed for the planning and execution of different activities. Faculty Co-ordinators from different departments are assigned to each student committee,who will monitored and give guidance.All above events are organized and planned through the meetings of different committee.

Events like AVISHKAR help in grooming the students not only as the future technocrats and Managers but also imbibe in them a sense of social responsibility, morals, etiquettes, integrity, ethics, and humanity. For bringing in a socio economic transformation of the society. ICEM thus takes pride in delivering a morally responsible professional.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

6.3 Faculty Empowerment Strategies

6.3.1 The institution has effective welfare measures for teaching and non-teaching staff

Response:

Welfare of mankind is a great cause for perfection. It is one step to achieve higher and higher goals.

Welfare is a strategic implication, can mobilize employees with motivation.

Institution has taken following effective welfare measures-

1) Provident Fund-

EPF scheme is applicable to all employees in the institute. As per government rule eighteen hundred rupees are credited to employees PF account and equal amount is contributed by employer. 8.33% of employers contribution goes to PF pension scheme and remaining in employees PF

2) Gratuity Fund-

Gratuity is payable to employees after completion of five years of permanent service. Employees get gratuity after relieving from service.

3) Group Insurance & Medical Assistance-

Institute facilitates group mediclaim policy. Institute is having tie up with hospitals, so as to avail medical treatments. Institute has light duty vehicles available for emergency services.

4) Qualification Improvement-

Institute promotes employees for higher education to improve their qualification by providing leaves and financial assistance. After completing higher education, Institute promotes employees and also gives the increments in salary as per the norms.

5) Maternity Leave-

Maternity Leave of 90 days with full pay is sanctioned to female employees.

6) Travel Policy-

Under travel policy, the institute reimburse employees for authorized business expenses activity related with movement of employee, in local or national or international activities.

7) Appreciation-

Through scrutiny Institute selects and appreciates best teacher, best supporting staff, and best admin staff every year. Felicitation of every employee is done after completing their twelve years of continuous service at Institute.

8) Special Allowence-

On occasion of silver jubilee celebration of IGI, special increments are given to employees. Diwali bonus to class IV employee.

9) Knowledge Upgradation-

Institute promotes teaching faculty to participate in workshops/seminar/conference with necessary fund

10) Sports & Gym Facility-

Institute encourages for by organizing indoor and outdoor games competitions such as cricket, basketball, volleyball, chess, badminton, table tennis, carom. Winner team and individuals receives trophy and prizes.

Institute have well equipped gymnasium for employees to maintain physical fitness

11) Uniform to Class IV Employee-

Institute provide free of cost college uniform to class IV employees.

12)Entertainment-

Institutes also organizes professional drama / play, different cultural activity to entertain employees. Also Institute celebrates Navratri Utsav,Ganesh festival and other regional festivals.

13) Financial Help-

Institute pays advance salary for needy employees.

14) Admission Help to employee’s ward-

Priority is given to admission in IGI institutes for employee’s wards to take admission from junior kg to post graduation in IGI institutes.

15) Festive Get Together-

On occasion of Diwali festival, chairperson organizes Laxmi Pooja with lunch for all employees. Also distributes Ganapati idols to those who celebrates festival at home.

16) Indira culture-

Institute serves tea twice a day to all employees.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

6.3.2 Average percentage of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies during the last five years

Response: 34.46

6.3.2.1 Number of teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
32	51	50	44	35

File Description	Document
Details of teachers provided with financial support to attend conferences,workshops etc during the last five years	View Document
Any additional information	View Document

6.3.3 Average number of professional development /administrative training programs organized by the institution for teaching and non teaching staff during the last five years

Response: 7.6

6.3.3.1 Total number of professional development / administrative training programs organized by the Institution for teaching and non teaching staff year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
13	7	7	8	3

File Description	Document
Reports of Academic Staff College or similar centers	View Document
Details of professional development / administrative training programs organized by the Institution for teaching and non teaching staff	View Document
Any additional information	View Document

6.3.4 Average percentage of teachers attending professional development programs viz., Orientation Program, Refresher Course, Short Term Course, Faculty Development Program during the last five years

Response: 67.3

6.3.4.1 Total number of teachers attending professional development programs, viz., Orientation Program, Refresher Course, Short Term Course, Faculty Development Programs year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
105	123	67	65	44

File Description	Document
IQAC report summary	View Document
Details of teachers attending professional development programs during the last five years	View Document
Any additional information	View Document

6.3.5 Institution has Performance Appraisal System for teaching and non-teaching staff

Response:

Quality of education is of utmost importance for improving the outcomes and achievements. It is implemented with the help of Performance appraisal system.

The Institute strictly follows all the basic recruitment and promotional policies as stipulated by AICTE, Savitribai Phule Pune University as well as Government of Maharashtra.

Since 2017-18, Institute has designed its own Performance Self-Appraisal system in place, which every Teaching and non-teaching staff is supposed to go through every year.

Performance Self-Appraisal system for Teaching Faculty-

Performance self-appraisal for teaching faculty is divided into following categories.

1. Academics-Course file, Number of lectures conducted, teaching load, student feedback, arranging additional sessions and result analysis.
2. Co-Curricular activities- Institute level & department level responsibilities, members of organizing committee, project guidance, and Industry sponsored project, Membership and active participation in professional bodies etc.
3. Research Activity-Publication of research papers presented at conferences, Text or Reference Books Published by International Publishers with an established peer review system, sponsored projects, Guiding PG & PhD Students, Project outcome etc.
4. Internal Revenue Generation-Attending a training in Industry during vacation / Non-academic days, Consultancy, arranged training, Software application development, design of any product or equipment for laboratory use.
5. Administrative work- Any specific task, Examination duties such as paper setter, squad, senior

supervision ,moderator, CAP, Contribution for University level like syllabus review etc.
 6.Others- Counselling / admission process / summer training / placement / social activities /Team Player/Involvement in social activity. etc.

Teaching faculty is expected to fill the Self-Appraisal Report (SAR). The Self-Appraisal Report (SAR) forms are submitted to the respective HOD at the end of each academic year. HODs verify the SAR and with his remark forwards the self-assessment sheet to the Principal. After analysis the strengths and weaknesses of teaching staff are communicated and counseled by Principal.

The outcome: The best part of the SAR is that each faculty becomes aware of their strong and week point and tries to improve in the respective week area.

Performance Self-Appraisal system for Non-Teaching Faculty-

Performance self-appraisal for Non-teaching faculty is divided into following categories.

1. Self-evaluation- Self driven initiative, positive response, identify and analyse the problem, innovative and creative in task and qualification improvement
2. Co-curricular Activity- Member of organizing committee and workshop training attended.
3. Administrative Work- Institute level responsibility, department level responsibility.
4. Others- Admission campaigning, counseling of aspiring students, admission reference and involvement in social activity.

Non-teaching Staff is expected to fill the Self-Appraisal Report (SAR). The Self-Appraisal Report (SAR) forms are submitted to the respective section head at the end of each academic year. Section head verify the SAR and with his remark forwards the self-assessment sheet to the Principal. After analysis the strengths and weaknesses of non-teaching staff are communicated and counselled by Principal.

The outcome: The best part of the SAR is that each staff member becomes aware of self-weaknesses and tries to improve in their week areas

File Description	Document
Any additional information	View Document

6.4 Financial Management and Resource Mobilization

6.4.1 Institution conducts internal and external financial audits regularly

Response:

Our Society has maintained a very transparent financial system in the Institutions. College conducts the internal as well as external/statutory financial audits regularly.

An internal approval system for all expenses is in place. Accordingly bill/voucher is recommended by the Head of the Department and are approved by the Principal. Proper record of all the expenses is maintained

by the accounts department. The internal financial accounting is completed every month. The internal auditor appointed by the institute cross checks and verifies Books of Accounts (Bills/Vouchers, Bank Reconciliation, etc.) and also finds out the shortcomings / errors. These errors and/or shortcomings are explained to the institute Accountant and the principal by the internal Auditor. The errors/Shortcomings in the accounts are rectified as per the instructions of the internal auditor immediately.

For external/statutory audit Institute has appointed Chartered Accountant M/s Shashank Patki and Associates. They visit the institute twice every year for external audit and check the books of accounts and then prepare his audit report & audited statements which is presented to management. The shortcomings and errors/rectifications in the audit are enlisted in the report of the external/Statutory auditor's report.

Finalization of the account is completed and audited statements are prepared signed by the Principal, and chartered accountant.

So far, no major objections are found in the audit by the statutory auditors and minor audit suggestions are compiled as per procedure.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

6.4.2 Funds / Grants received from non-government bodies, individuals, Philanthropists during the last five years (not covered in Criterion III) (INR in Lakhs)

Response: 1.86

6.4.2.1 Total Grants received from non-government bodies, individuals, philanthropists year-wise during the last five years (INR in Lakhs)

2017-18	2016-17	2015-16	2014-15	2013-14
1.14	0.02	0.17	0.435	0.09

File Description	Document
Details of Funds / Grants received from non-government bodies during the last five years	View Document
Any additional information	View Document
Annual statements of accounts	View Document

6.4.3 Institutional strategies for mobilisation of funds and the optimal utilisation of resources

Response:

To accomplish Institute's vision and mission broadly, the effective and optimal utilization of finances are managed by the financial policy decided by the management. The institute is a self finance organization. The financial transaction are carried out from income generated (Tuition Fee & Development Fee) by institute during particular financial year.

Institute has made the necessary provision in the books of account towards efficient use of available fund for each academic year. As per the guidelines of the management and Principal, report of sanctioned budget and actual expenditure are regularly maintained.

The Institute has a well-defined procedure to monitor effective and efficient utilization of available financial resources for infrastructure development and academic processes. Every year, the budget is prepared well in advance after taking into consideration the requirement of every department. Each department prepares the budget based on the requirement such as equipment, computer as well as consumable required for next academic session.

Principal puts up the budget in budget committee and after discussion and necessary corrections/modifications, budget committee recommends the budget for approval. Governing Body recommends the budget for approval. The budget is reviewed by the management and approved after necessary changes.

The Principal and the Head of Departments discuss the requirement and decide the priorities while allotting financial resources for various purposes; and also ensure optimum use of available financial resources. The Institute has standardized procedure for sanctioning of funds for various activities and also for settlement of advance and passing of bills for payment.

The total expenditure are divided into following heads

1. Annual maintenance expenses
2. Vehicle Running and maintenance expenses
3. IT support Revenue expenses
4. Academic expenses
5. Non-academic expenses
6. Employee related expenses
7. Educational expenses
8. Other expenses

As per budgetary provision Principal approves the expenses against various co-curricular & extracurricular activities like technical events, sponsoring of faculty & staff for various skill development programs, providing financial support for attending conferences, workshops, pursuance of higher education etc. Financial support is also provided for participation of students at various national and international level technical events as well for participation at various national & state level cultural & Sports competition.

The Institute has Store/Purchase department. The purchase procedure such as calling quotation, technical bid, preparing comparative statement, negotiation meetings are followed for effective and efficient use of

available financial resources with help of Purchase committee. The department ensures that suitable equipment with right specification is procured at competitive and optimal prices.

Financial audits are conducted by a chartered accountant every financial year to verify the compliance with established processes.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

6.5 Internal Quality Assurance System

6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes

Response:

Internal Quality Assurance Cell (IQAC) has been constituted as per the guidelines and structure suggested by UGC

The primary objective of the cell is

- To develop a system for conscious, consistent and catalytic improvement in the overall performance of the institution
- To channelize all efforts and measures of the institution towards promoting its holistic academic excellence

The cell has ensured the implementation of academic planner and initiated innovative practices in teaching learning through the use of advanced ICT tools, effective implementation of CIE, FDPs, implementation of Outcome Based Education (OBE), workshops, seminars, academic audits etc.

The following are the two significant IQAC initiatives:

Practice 1: Outcome Based Education (OBE)

Outcome based education (OBE) clearly organizes the curriculum, instruction and assessment to focus on essential student centric learning system. The OBE system defines a clear set of outcomes that are to be accomplished at the end of the course and provides opportunities within the system.

IQAC had arranged two days awareness workshop on the implementation of Outcome Based Education

system. The highlight of the workshop were Formulation of Vision, Mission and its consistency, important terms used in OBE, Mapping of COs' with POs' and PSOs' and their attainment levels.

As an outcome of this workshop, the departments started framing COs, PEO, PSO and POs and its mapping .The mapping factor for each CO and PO is defined in a three point scale from high to low relevance. The gaps are identified during mapping and additional activities have been planned to bridge in the subsequent semester. The CO attainment levels i. e 1-low, 2-medium, 3-high are decided based on the previous results of the university for 3-4 years in consultation with the HOD along with the respective faculty member. At the next level the assessment was done for the direct and indirect attainment of CO and PO for every course.

OBE review workshop has also been conducted to clarify the doubts of the faculty in the OBE implementation. OBE audit was also conducted to ensure the uniform and effective implementation of OBE system across all departments. OBE audit was conducted and review report was shared with everyone.

Practice 2: Academic Audit

The academic audit assess the quality processes, strengths and weaknesses of all departments and the key activities required to improve the quality of teaching and learning.

IQAC initiated the department academic audit to provide a quality education in the best interests of the discipline and student learning. Entire academic system, activities and faculty development of all departments are audited during the visit and necessary suggestions are provided by the audit team for improvement.

The Academic audit process was reformed in the subsequent year and faculty wise academic audit was conducted. An audit team comprising of HODs was appointed to review the faculty member's academic planning, performance monitoring and execution, OBE implementation, professional development of faculty and systematic documentation.

The observations of the audit team and its recommendations were informed to the respective Heads and the compliance report was solicited.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

6.5.2 The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms

Response:

The IQAC has a greater role and responsibility in maintaining quality standards of teaching-learning, and

evaluation.. IQAC ensures the proper implementation of academic calendar and takes the responsibility to initiate and plan various activities that are necessary to increase the quality of the education keeping the institutional vision perspective and monitors it at periodic intervals. The structure and review of teaching learning process is depicted in the attached flow diagram.

1. Quality enhancement through Academic Monitoring Committee

The implementation and delivery of the curriculum is regularly monitored through ERP and weekly reviewed by Academic Monitoring Committee (AMC). AMC is centralized committee headed by the Institute level Academic Coordinator along with Department Coordinator and is responsible to monitor the conduction of daily lectures, practicals and project reviews. They submit weekly report to HOD for corrective measures. The Institute level academic coordinator submits the consolidated academic report to Principal for review.

A monthly academic report comprising of the syllabus coverage, Continuous Internal Evaluation, execution of academic planner and lectures conducted are also prepared by department academic coordinators and submitted to Institute level coordinator through HOD for corrective measures. The Principal conducts monthly meeting with academic monitoring committee and reviews the academic planning, execution and suggests necessary activities to be implemented for improvement.

The monitoring committee also observes the schedules mentioned in the institute and department calendar related to curricular and co-curricular activities. AMC maintains uniformity regarding implementation of academic policies in each dept.

2. Quality enhancement through Continuous Assessment

Continuous assessment is intended to improve student learning, understanding and, ultimately, academic performance. The purpose of Continuous Assessment is to provide timely guidance & suggestions to students to improve their academic performance. In the view of this, the institute has internal assessment method for theory subjects comprising of parameters like internal tests, unit tests, assignments, student participation in co-curricular & extra-curricular activities & attendance.

Practical subjects are evaluated through timely completion of experiments, understanding, execution, presentation, group discussion, case study and mock viva.

The academic record of every student is maintained by the respective course faculty which is assessed immediately after the completion of every assignment. Institute conducts Project Reviews at regular intervals. The assessment is based on innovative idea, depth of understanding, project design, development, implementation, applications, individual contributions, presentation, and the work carried out in a semester. Additional weightage is assigned to research publications in journals & conferences. A log book of work carried out by the students & phase wise review of the project development during the semester is conducted by project review panel and submitted to department project coordinator.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

6.5.3 Average number of quality initiatives by IQAC for promoting quality culture per year

Response: 7.8

6.5.3.1 Number of quality initiatives by IQAC for promoting quality year-wise for the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
14	7	6	9	3

File Description	Document
Number of quality initiatives by IQAC per year for promoting quality culture	View Document
Any additional information	View Document
IQAC link	View Document

6.5.4 Quality assurance initiatives of the institution include:

1. Regular meeting of Internal Quality Assurance Cell (IQAC); timely submission of Annual Quality Assurance Report (AQAR) to NAAC; Feedback collected, analysed and used for improvements
2. Academic Administrative Audit (AAA) and initiation of follow up action
3. Participation in NIRF
4. ISO Certification
5. NBA or any other quality audit

A. Any 4 of the above

B. Any 3 of the above

C. Any 2 of the above

D. Any 1 of the above

Response: B. Any 3 of the above

File Description	Document
Details of Quality assurance initiatives of the institution	View Document
Any additional information	View Document
Annual reports of institution	View Document

6.5.5 Incremental improvements made during the preceding five years (*in case of first cycle*) Post accreditation quality initiatives (*second and subsequent cycles*)

Response:

To inculcate the best engineering practices, managerial skills and entrepreneurial abilities the institute has taken various initiatives for the continual improvement of students.

- 1. Continuous Internal Evaluation:** To monitor the regularity and improvement in teaching learning process, CIE system was introduced. The term work policy comprising the evaluation criteria such as students' academic improvement, completion of assignments, attendance, performance in tests and other activities were decided and conveyed to all students in the beginning of the semester. One to one assessment and review was discussed with the students.
- 2. Scholar Club:** An elite club initiated for the holistic development of outstanding students, by imparting training in the latest technologies and professional skills.
- 3. Mentoring:** One mentor is assigned to a batch of 18-20 students and regular mentoring sessions are conducted by the faculty. The department level mentor coordinator prepares the summary of mentoring sessions and submits to Institute mentor coordinator which is submitted to Principal for necessary reforms and actions.
- 4. Additional Technical Training:** Value added Programs (VAP) through e-learning resources such as NPTEL, NDL and IIT spoken tutorials are introduced in the time table. Students acquired certifications in Python, advanced java, PHP, advanced C, C++, Hyper mesh, learning beyond syllabus, Telecommunication, Dale Carnegie Certification Sales & Service Excellence, digital marketing, portfolio management etc.
- 5. Incubation cell:** The objective of this cell is to develop innovative products to create better and fast digital world and stay updated to provide topnotch products. QR based attendance system project is developed by this cell and presently they are working on smart parking and ERP solutions.
- 6. Department academic advisory committee (DAAC):** This committee comprise of members from Industry, parents, alumni, academics and student. The committee discusses the teaching learning process, projects, attendance, industry interface and placements of students and provides valuable suggestions for the improvement.
- 7. Soft skills and aptitude training:** With a dedicated team of soft skill and aptitude trainers, the talent management cell facilitates the required training to students for "job-readiness". The entire training is offered free of cost to all the students.
- 8. Faculty Development Programs:** To raise the faculty teaching standards and to appraise with the latest technologies various STTPs and FDPs are conducted in the area of modern teaching pedagogies and research methods, big data analytics, R programming, AI and IOT, advances in concrete technology, computational fluid dynamics, and electric vehicles: aspects of manufacturing etc.

9. **Teaching planners:** For the effective planning in teaching & learning, many reforms have taken place in the course planner of the faculty by introducing the initiatives such as content beyond syllabus, “one faculty one industry visit per month”, guest lectures etc.
10. **Student Information Manual :** (SIM) :Student information manual which comprise of Institute and Department -vision / mission /quality policy/ PEO /PSO/PO, institute calendar, department time table, , department academic planner, syllabus, list of text books and reference books, teaching planner, content beyond syllabus, ICT tools, web links, list of experiments, assignments, previous question papers of university, theory question bank, term work policy , department faculty, code of conduct were compiled in single file and shared with all students.
11. **Research activities:** Guidance is given to faculty members to pursue Ph.D. programs, to file IPR, publish research articles and present research papers at seminars and conferences through **Sanshodhana** research series for faculty members, **Anveshana** research awareness workshops for students.
12. **Outcome Based Education:** In order to promote student centric learning and performance based outcome, Outcome based education (OBE) system was incorporated. It defines a clear set of outcomes that are to be accomplished at the end of the course and provides opportunities within the system that enable and encourage all students in achieving the defined goals.
13. **Internal Quality Assurance Cell:** is formed to inculcate quality culture and enrich teaching and learning process. Various quality initiatives such as implementation of Outcome Based Education (OBE), Faculty Development Programs (FDP) and academic audit were initiated by IQAC.
14. **Academic Audit:** This audit assess the strengths and weaknesses of all departments and the key activities required to produce, assure, and regularly improve the quality of teaching and learning , activities, Faculty development and communication system.

Deatils of activity for incremental improvements in table format are in below link

https://drive.google.com/open?id=1hJ0D9Sn8mR-pjQ0qhxngo-NBAPQaC_J8

File Description	Document
Any additional information	View Document

Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

7.1.1 Number of gender equity promotion programs organized by the institution during the last five years

Response: 38

7.1.1.1 Number of gender equity promotion programs organized by the institution year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
15	5	5	4	9

File Description	Document
Report of the event	View Document
List of gender equity promotion programs organized by the institution	View Document
Any additional information	View Document

7.1.2

1. Institution shows gender sensitivity in providing facilities such as:

1. Safety and Security
2. Counselling
3. Common Room

Response:

Safety and security:-

The institute campus has taken necessary measures for safety and strict security. Accordingly security guards are made available 24X7 in the campus. Inside campus, it is mandatory to wear Identity card for all the students and staff members. Institute has installed CCTV Cameras at different locations such as Institute Entrance, Library, Workshop, corridor, Principal's Office, Parking. Fire extinguishers are also installed inside campus. Nearby police station contact numbers and toll free help line numbers are displayed on notice boards at strategic locations including ladies common room. Pick up and drop facility is available for girl students and female staff in case of events organized in extended hours.

Counselling:

Allocated to Specific mentor for entire semester. Issues identified by respective mentors during

departmental counselling are discussed with Head of the departments for further corrective measures.

Management has taken a special initiative for counselling under the unique cell called “Care Club”. Under this, Chairperson does one to one personal counselling to motivate them.

Institute has student council and women’s cell which organizes various counselling sessions for students and faculty members. Yoga sessions are conducted to maintain the physical and mental wellbeing of stakeholders.

Common Room:

Institute has separate girls and boys common room which is equipped with Wi-Fi ,first Aid box, Bed, Wash basin, Toilet, Dust Bins and Study Table.

File Description	Document
Any additional information	View Document

7.1.3 Alternate Energy initiatives such as:

1. Percentage of annual power requirement of the Institution met by the renewable energy sources

Response: 0

7.1.3.1 Annual power requirement met by the renewable energy sources (in KWH)

7.1.3.2 Total annual power requirement (in KWH)

Response: 39350

File Description	Document
Details of power requirement of the Institution met by renewable energy sources	View Document

7.1.4 Percentage of annual lighting power requirements met through LED bulbs

Response: 8.93

7.1.4.1 Annual lighting power requirement met through LED bulbs (in KWH)

Response: 3515

7.1.4.2 Annual lighting power requirement (in KWH)

Response: 39350

File Description	Document
Details of lighting power requirements met through LED bulbs	View Document
Any additional information	View Document

7.1.5 Waste Management steps including:

- Solid waste management
- Liquid waste management
- E-waste management

Response:

Solid waste management:

Institute has solid waste management system in place. The collected waste is segregated at the source of the generation. The waste bins are placed separately for dry and wet waste at every corner of the corridor, wash rooms and common room. The dry waste bins are also placed in laboratories, library, classrooms, etc. The waste is handed over to Gram panchayat waste collection support system for further treatment.

Old newspapers, used papers and journal files, workshop scrap etc. are given for recycling to external vendors as per need.

Liquid waste management:

Institute has STP plant for waste liquid management. The waste from the wash rooms, hostels, laboratories and canteen is treated with a full-fledged STP, and the treated water is extensively used for gardening to maintain greenery in the campus. Periodical maintenance of the STP is done, So that it functions efficiently throughout the year without interruption.

E-waste management

Time to time a status report is prepared in each department for all computers, supporting devices and lab set ups. After studying the report, concerned authorities takes necessary actions regarding repairing and scrapping of outdated electronic gadgets. E-waste disposal is done by handing over it to E-waste recycling agencies for proper disposal. Institute also donates old working desktop computers to needy employees.

File Description	Document
Any additional information	View Document

7.1.6 Rain water harvesting structures and utilization in the campus

Response:

Rain water harvesting is a technique of collection and storage **of rainwater** into natural reservoirs or tanks, or the infiltration of surface **water** into subsurface aquifers before it is lost as surface runoff. One method **of rainwater harvesting** is rooftop **harvesting**.

Currently institute is not having rain water harvesting in place as plant but indirectly water wastage is taken care of with Sewage Treatment Plant(STP) which takes care of the waste water to be utilized for the gardening and other purpose to implement rain water harvesting process indirectly. Though institute is in process of having rain water harvesting in place in future.

7.1.7 Green Practices

- **Students, staff using**
 - a) **Bicycles**
 - b) **Public Transport**
 - c) **Pedestrian friendly roads**
- **Plastic-free campus**
- **Paperless office**
- **Green landscaping with trees and plants**

Response:**Bicycles, Public Transport, Pedestrian friendly roads**

Institute motivates students and staff members to use common bus facility which is available from almost every corner of the Pune city. The Railway station is close to institute campus which gets benefits for students as well as staff. Staff members and students those are residing at similar locality use carpooling system and share their vehicle to reach college. The college has convenient connectivity to the city through public transport. Staff and Students use pedestrian friendly road within the campus. Institute conducts awareness programs to promote use of bicycles.

Plastic-free campus

Institute encourages use of non-plastics items in the campus through awareness programs. Institute has taken a special plastic free campus drive. Time to time notifications are circulated through emails regarding plastic free campus and restrictive usage of plastic water bottle. During different functions in the institute, we prefer to use glasses in place of plastic bottles. In canteen and mess also we use non plastic items to serve.

Civil Engineering department students have carried out different projects using plastic waste such as making paver blocks, water tank construction, Flexible Pavement Construction, etc. .

Paperless office

To make paperless office Institute is using ERP system (website & mobile APP) and office365 for all the inter office communications, academic and administrative work. In addition to that institute encourages vendors to send purchase orders and invoices via email as PDFs. Wherever there is necessity of hard copy, we prefer one side used paper.

Institute has practices to use digital aids for sharing information like exam seating arrangement and important notices through LED TV display in place of hardcopy. Biometric attendance system is implemented for monitoring staff attendance. Cloud based common drive is used to share material like study notes, event reports, photographs etc.

Green landscaping with trees and plants

Institute is cognizant of the need for keeping the campus green and eco- friendly. The greenery of the campus is maintained & extensive green coverage has been created. The extensive growth of trees in the campus is ample proof of the intent of the institute to make the campus eco-friendly.

A team has been outsourced by the Institute for gardening and watering of all trees and plants.

To encourage green earth activity institute has tradition to felicitate guests and speakers with the sapling. Institute has a NSS cell which persistently carries out Tree plantation activities.

In the year 2015 special drive under “vanmahostava” was conducted, where more than 100 plantlets were planted provided by Gram Panchayat, Parandwadi.

File Description	Document
Any additional information	View Document

7.1.8 Average percentage expenditure on green initiatives and waste management excluding salary component during the last five years

Response: 0.91

7.1.8.1 Total expenditure on green initiatives and waste management excluding salary component year-wise during the last five years(INR in Lakhs)

2017-18	2016-17	2015-16	2014-15	2013-14
6.80	14.60	5.10	11.40	6.8

File Description	Document
Details of expenditure on green initiatives and waste management during the last five years	View Document
Any additional information	View Document

7.1.9 Differently abled (Divyangjan) Friendliness Resources available in the institution:

1. Physical facilities
2. Provision for lift
3. Ramp / Rails
4. Braille Software/facilities
5. Rest Rooms
6. Scribes for examination
7. Special skill development for differently abled students
8. Any other similar facility (Specify)

A. 7 and more of the above

B. At least 6 of the above

C. At least 4 of the above

D. At least 2 of the above

Response: B. At least 6 of the above

File Description	Document
Resources available in the institution for Divyangjan	View Document
Any additional information	View Document
link to photos and videos of facilities for Divyangjan	View Document

7.1.10 Number of Specific initiatives to address locational advantages and disadvantages during the last five years

Response: 9

7.1.10.1 Number of specific initiatives to address locational advantages and disadvantages year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
2	1	2	2	2

File Description	Document
Number of Specific initiatives to address locational advantages and disadvantages	View Document
Any additional information	View Document

7.1.11 Number of initiatives taken to engage with and contribute to local community during the last five years (Not addressed elsewhere)

Response: 31

7.1.11.1 Number of initiatives taken to engage with and contribute to local community year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
12	4	5	6	4

File Description	Document
Report of the event	View Document
Any additional information	View Document

7.1.12

Code of conduct handbook exists for students, teachers, governing body, administration including Vice Chancellor / Director / Principal /Officials and support staff

Response: Yes

File Description	Document
Any additional information	View Document
URL to Handbook on code of conduct for students and teachers , manuals and brochures on human values and professional ethics	View Document

7.1.13 Display of core values in the institution and on its website

Response: Yes	
File Description	Document
Any additional information	View Document
Provide URL of website that displays core values	View Document

7.1.14 The institution plans and organizes appropriate activities to increase consciousness about national identities and symbols; Fundamental Duties and Rights of Indian citizens and other constitutional obligations	
Response: Yes	
File Description	Document
Details of activities organized to increase consciousness about national identities and symbols	View Document
Any additional information	View Document

7.1.15 The institution offers a course on Human Values and professional ethics	
Response: Yes	
File Description	Document
Any additional information	View Document
Provide link to Courses on Human Values and professional ethics on Institutional website	View Document

7.1.16 The institution functioning is as per professional code of prescribed / suggested by statutory bodies / regulatory authorities for different professions	
Response: Yes	
File Description	Document
Any additional information	View Document
Provide URL of supporting documents to prove institution functions as per professional code	View Document

7.1.17 Number of activities conducted for promotion of universal values (Truth, Righteous conduct, Love, Non-Violence and peace); national values, human values, national integration, communal harmony and social cohesion as well as for observance of fundamental duties during the last five years	
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Response: 84

7.1.17.1 Number of activities conducted for promotion of universal values (Truth, Righteous conduct, Love, Non-Violence and peace); national values, human values, national integration, communal harmony and social cohesion as well as for observance of fundamental duties year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
41	12	11	07	13

File Description	Document
List of activities conducted for promotion of universal values	View Document
Any additional information	View Document

7.1.18 Institution organizes national festivals and birth / death anniversaries of the great Indian personalities

Response:

Institute has tradition to celebrate national festivals like Republic Day and Independence Day and birth / death anniversaries of the great Indian personalities to inculcate national and human values in the students which helps them to become responsible Indian citizen.

Republic Day and Independence Day

Every year institute celebrates Republic Day and Independence Day on 26th January and 15th August respectively, where all staff and students gather at the institute to honor the constitution of India and celebrate freedom respectively. The program starts with Flag Hoisting at the hands of Chief Guest followed by National Anthem. College has a group called "Rangakarmi" who hosts different programs for gathering like Patriotic songs singing, perform various role plays with social messages.

Mahatma Gandhi birth anniversary

2nd October is celebrated as Mahatma Gandhi's birth anniversary by student in remembrance of his contribution and devotion in independent India through his moral values like Truth and Ahimsa. Through elocution and speeches students throw light on his work and living principles of simple living and high thinking. The institute through NSS organizes 'Swaachh Bharat Abhiyaan' rally every year.

Teachers Day

Since 1962 the day 5th September commemorates the birthday of Dr Sarvepalli Radhakrishnan, a great teacher and a staunch believer of education, known for his contribution towards the education system in India. Teachers' are noble contributors to the society to mould and nurture responsible citizens to the

Nation.

The student associations celebrates the Teacher's Day on September 05 at respective departments, where different cultural activities, games are planned.

Teacher's day has a special significance in lives of "Indiraitees" as this is also a "Foundation Day" of Indira Group of Institutes (IGI). The day is filled with joy and has common celebration for all the Institutes under IGI at one place.

On this special day faculty members are honored with different awards for their contribution in teaching as well as service in IGI. Non-teaching members are also felicitated for their continuous support.

Engineers Day

The Engineer community across India celebrates 15th September as Engineers Day every year to tribute and honor to "Bharat Ratna Mokshagundam Visvesvaraya", an eminent engineer. All engineering departments at institute celebrates the "Engineer's Day" with great enthusiasm and spirit to do something innovative. Different games and activities like "Extempore", "Best out of Waste", "Think and Throw", Debate are carried out for the students to showcase their talent and nurture their technical and innovative skills.

File Description	Document
Any additional information	View Document

7.1.19 The institution maintains complete transparency in its financial, academic, administrative and auxiliary functions

Response:

The institute maintains complete transparency in its financial, academic, administrative & auxiliary functions. Institute has designed the website (www.indiraicem.ac.in) where all the information related to academic, administrative and auxiliary functions is easily available.

Head of the departments submits annual budget proposal for approval as per the requirements raised by the faculties towards Principal. Principal prepares annual budget for Institute and presents towards higher authority/ Management with justification. Higher authority/ Management approves the budget as per financial resources available. Principal communicates the approved budget to all the HODs. As per the approved budget allocation, dissemination and usage is done.

All financial transactions of the institute are done either by online transaction, DD or cheque. All Exam remunerations, salary, PF amounts, gratuity or any other transactions to staff are directly transferred to the respective staff's bank account. Audited statements regarding financial activities are circulated to all the concerned members of the Governing body.

Recruitment of faculty, service books, leaves, Inter-organizational transfers & all necessary procedures are

practiced as per the guidelines given by AICTE, Affiliated University, & UGC. All circulars regarding students, teaching staff & non-teaching staff are circulated & displayed on the notice boards and ERP. All administrative and academic activities are performed through ERP.

College Development Committee (CDC) also includes representation from teaching staff & nonteaching staff where strategic decision is taken with mutual discussion. Various statutory and non-statutory committees are formed to regulate institute's functioning flawlessly. Planning & execution of different activities are discussed & decided in these committees which are communicated to all stake holders.

Suggestions are requested from all Head of department before the planning of academic activities in every semester. Heads of Department gives suggestions by consultation with all staff of their respective department. Accordingly Principal prepares Institute Academic calendar. It is displayed on website, ERP and Student Information Manual (SIM) before commencement of the term. The Academic transparency is maintained through ERP system (website and Mobile APP) by uploading "Student Information Manual" prepared by faculty members. Time Table, Theory & lab assignments, question banks, and study notes are shared with the students through ERP. Every Student has individual login to see notifications, attendance, etc. The defaulter list is prepared periodically and communicated to students and their parents with SMS facility. Continuous assessment is done and communicated to the student. Regularly online faculty feedback is taken from students, which is used for improvement in teaching learning.

File Description	Document
Any additional information	View Document

7.2 Best Practices

7.2.1 Describe at least two institutional best practices (as per NAAC Format)

Response:

Best Practice A

1. Title: Liaisoning with Industry

2. Objectives :

1. To bridge the gap between the curriculum and industrial practices.
2. To expose the students to industrial environment through in-plant training, internships, field visits etc.
3. To provide a platform for industry to interact with our students who propose solutions to the industry problems through sponsored projects.

3. The Context

The industry trend and technology changes at a faster pace, however curriculum for the courses are

upgraded after periodic interval as the institute is affiliated to university, which generates gap between industry and academia. Hence, in order to bridge the gap it is essential to give the industrial exposure to the students.

Institute has a vision to develop successful Engineers, managers and entrepreneurs who are technically competent, having right attitude and socially responsible citizens. It is intended that, the students should have an application based approach to the domain knowledge, from laboratory to Industry. Students can relate the class room teaching with the practical problem skills by doing projects based on industry problem statements.

Along with the students, faculties are also required to get updated with the recent industry trends. The institute hence focusses on having a sound interaction with the industry to provide our faculties a chance to upgrade their technical skills as per the changing industry trends.

4. The Practice

Industry representatives are invited to deliver expert lectures for the students, to update them with content beyond syllabus. Institute organizes workshops for the students to give hands on practice on latest technological trends. Regular industrial visits for the students are planned to give them practical exposure to the industrial applications and technologies. Final year students' work on the problem statements given by the industry in the form of industry sponsored projects. Institute has signed MoUs with core and other industries to provide benefits of technical sessions, sponsored projects and industry Visits.

The institute has also adopted the practice for teachers to visit the industry regularly. Each faculty visits industry once in a semester with a group of students from their respective departments. The experience and knowledge gained by the faculty is also discussed with the students during their regular teaching sessions. At every department, there is representation from industry in academic advisory committee.

Institute conducts Value Added Programs (VAP) comprising of additional technical sessions to cater the need of industry.

The students are provided with certification programs on latest industry trends of different domains to enhance their skills and compete with the global market. This also strengthens their resumes while appearing for placements. Students are groomed and kept updated as per industry standards by arranging industry expert lectures regularly.

Students are connected with the industries for in-plant training/ Internship for a duration ranging from one month to one year, where the students get on site application based experience.

5. Evidence of Success

Institute has organized more than 15 technical and domain based workshops by industry experts. Around 112 Industries have been visited by the 6084 students across all streams.

In last five years more than 372 students went to industry for in-plant training for a period of one year during their study. More than 741 students underwent internships in industry and more than 590 students completed industry sponsored projects.

The continuous focus on industry-institute liasoning has resulted in 18 MOU's with the various domains of industry.

Around 150+ faculty members got exposure to the industry due to the "one faculty one industry" initiative by the institute. This has benefitted the faculties to enrich their practical skills and share their knowledge effectively in teaching learning process.

The suggestions from DAAC(Departmental Academic Advisory Committee) constituted at each department has helped to enrich the curriculum.

Around 500 +Students received national and international certification on latest domain specific industry trends. Such practices at the institute help student to solve real life problems of the industry which leads to enhance their technical, management and leadership skills.

Summary of Liaisoning with Industry

Sr. No.	Description	Number of Industries	Number of students
1	Industry Expert Session	138	8037
2	Industry Visit by Student	112	6084
3	Sponsored Projects	60	590
4	MOU	18	-
5	Faculty Industry Visit	150	772
6	DAAC Committee	6	-
7	Value Added Program (VAP)	Every semester	-
8	In-Plant Training	127	372
9	Internship	431	741
10	International/National Certification	23	500
11	Workshop/Seminar	15	30

6. Problems Encountered and Resources Required:

University curriculum restricts time period for internship. Time constriant for completion of activity due to overlap of other academiic activiities.

Best Practice B

1.Title: Indira International Innovation Summit

2. Objectives of the Practice:

- i) To create an interface for Institute- Industry Interaction
- ii) To provide an opportunity to students to hear and get inspired by the success stories, ideas and inputs by the renowned innovators and entrepreneurs across the globe.
- iii) To provide a chance for the students to get updated about the current trends and technologies of the industry.
- iv) To provide a platform for industry to interact with our students who propose solutions to the industry problems.

3. The Context :

Indira College of Engineering & Management organizes “Indira International Innovation Summit”(3i summit) every year. Innovators, Entrepreneurs and Senior Leaders from reputed industries are recognized and awarded for their contribution in their respective fields .This is carried out in order to promote the industry -academic linkages and create a platform for intellectual exchange of ideas.

During the 3i summit, the students meet the smartest minds in the Technology domain and India’s top and leading tech entrepreneurs, Start-up CEOs, to get an opportunity to build the clearest perspective on the industry

4. The Practice:

The summit is an endeavour by the institute to acknowledge the contribution of the industry stalwarts and expose academia to the leading edge innovation practices such as keynotes addresses, panel discussions, exhibition, and networking that helps students imbibe the knowledge and current trends of the industry.

The event acts as a remarkable platform for intellectual exchange of ideas between the industry giants and hundreds of aspiring students. Students were enlightened listening to the stories of some famous icons who graced the occasion, and encouraged them to innovate and invent. Some of the legends were:

•**Mr Arunachalam Murugantham** (popularly known as ‘PadMan’) who is a social entrepreneur who is the inventor of a low-cost sanitary pad making machine and has innovated grass-roots mechanisms for generating awareness about traditional unhygienic practices around menstruation in rural India. Mr. Murugantham has been accorded the recognition as Time Magazine’s “100 Most Influential People in the World 2014” for his accomplishments. In 2016, he was awarded the Padma Shri by the Government of India. He shared the story about his struggles of innovating low-cost sanitary napkins for rural India.

•**Mr Sandeep Paul** , an international award winning product designer whose His work has been honored by Prime Minister of India Mr. Narendra Modi in 2005, President of Taiwan Mr. Ma Ying-jeou in 2010 and is held in permanent collections of the Danish Design Museum in Copenhagen since 2009, as an example of Design to improve life. Mr Paul shared his insights to students about creative product designing.

•**Mr Kaushik Mudda** , an engineer, entrepreneur, author and a TedX speaker who co-founded Ethereal Machines, a hardware start-up which grew to become the first Indian company to win the coveted CES - Best of Innovation Awards and authored the book "63 Rejections - The fight to break even" aimed at

aspiring entrepreneurs and early stage ventures. He inspired the students on how to start their entrepreneurial venture.

•**Mr K. Ahmed Khan** is an Indian scientist and businessman who made success in using plastic for road construction. He is a proprietor of KK Plastic Waste Management.

He inspired students to think out of the box and in a way help the society at large.

•**Mr Ranjit Dahiya**, is passionate about street art and hand painted Bollywood posters. He has been engaging with this theme in his work for the last 18 years. Ranjit Dahiya is the founder of the Bollywood Art Project (BAP) (st.art). Dahiya love to paint Bollywood in the street of which Art Project is testimony. He is also the founder of Digital Moustache, a new media startup working at the intersection of rural lives and technology. He shared their experiences and insights with the students and motivated them to imagine things in their own way.

•**Ms. Kavita Mukhi**, the organic evangelist and the founder of 'Conscious Foods' shared about how she started her own farm in Alibag (Maharashtra) and launched the first ever Farmers' Market of Mumbai in order to support small farmers who are into organic farming, using no pesticides nor chemical fertilizers, and whom she considers as the real scientists of India.

As there are immense opportunities in India for business growth in a growing Indian economy, the Institute strives to generate innovative minds and help them to conquer the Indian market through this annual affair in the form of *Indira International Innovation Summit and HR Excellence Award*

The topics discussed includes mind set transformation, organisational change, use of entrepreneurial talent and technology within organisations, accelerator planning, venture capital and growth strategies, through merger and acquisition.

5. Evidence of Success:

The Indira International Innovation Summit is in pursuit of creating a platform that is rich in entrepreneurship as an engine towards sustainable and progressive economic and social development within a world of economic equality. Its two pillars of existence are promoting responsible entrepreneurship and creating an interface of the industry and students.

By organising such International summits, the institute ensures a legacy of hope, innovation and courage for students who have the possibilities of becoming future entrepreneurs.

This International summit also helps the Institute for future interaction with the icons from the industry in the form of guest lectures, workshops and industry visits thus for adding to advancement of the students.

6. Problems Encountered and Resources Required:

Since the Institute is situated in a remote location, it becomes inconvenient at times for the delegates to reach the venue. There is also a challenge in terms of budgeted allocation for the Summit in the annual budget set for the Institute. To build up a grand event like Indira International Innovation Summit, it needs

an enormous amount of time, effort and execution. It becomes difficult to extract time from the academic curriculum for the preparations which affects the academics to a certain extent .

File Description	Document
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7.3 Institutional Distinctiveness

7.3.1 Describe/Explain the performance of the institution in one area distinctive to its vision, priority and thrust

Response:

The Talent Management is one of the most distinctive features of Indira College of engineering and Management (ICEM). The Talent Management cell works under the Training and Placement Department of the institute. It is a team of in-house, dedicated Soft-Skill and Aptitude trainers, which trains the students of Engineering, MBA and MCA domain. The institute provides these trainings entirely free of cost to the students.

The institute is situated in a countryside due to which the majority of the intake students belong to the surrounding rural areas. These students didn't have the opportunity of growing up in English- speaking schools. Our objective at Talent Management is to make these students "job-ready" by training them from the basics and horn their skills for the holistic development by improving the communication skills and soft skills. Realizing the needs of the skills requirement, the Institute initiates the skill development training under the talent management cell in the beginning of every academic programme which is the unique feature.

Talent management is equipped with high learning-training resources, and sophisticated language lab with advanced software that helps to train students effectively.

Highlights of Talent Management Cell:

- Aptitude training
- Soft skills
- Communication Skills
- Vocabulary enrichment
- Spoken English practice through Language Lab
- Group Discussion

- Mock Interviews
- Personal Interview
- Personality Development

The team of Talent Management sensitizes students on various selection processes of the corporate world- specifically Group Discussions and Personal Interviews. We identify the required skill gap of the students for the elite top-notch companies through various classroom activities, conduct trainings on bridging the skill- gap and also help students enhance the pre-requisite skills in them.

Communication, friendliness, optimism, can-do attitude, soft skills that include aptitude training can be taught and strengthened through training. Since the majority of students in the institute belong to the rural backgrounds, the effective English speaking skills and Mother Tongue Influence (MTI) have always been the major challenges in imparting soft-skills training. Therefore the trainings are designed in a customized manner where besides learning English vocabulary and improving English speaking skills , the student is able to shed his/her shyness, hesitation, angst, stress and associated signs that are manifested in the form of fumbling, getting blank and nervousness.

Besides communication skills , the team imparts trainings on the areas of Personality Development, Power Dressing, Body language, confidence building, Self -management , Team Building skills Training, Grooming etc

Both soft-skills and aptitude trainings are imparted two hours per week to each class along with extra lectures during placements. The soft-skills training starts from the 2nd year where the Savitribai Phule Pune University (SPPU) syllabus is followed . The focus at Talent management for the 3rd year and 4th year engineering students along with MBA and MCA ,on the first -hand is to strengthen their communication where the students are being trained on their grammar, vocabulary, speaking and writing skills. The aim is to help the learners to improve the accuracy of the English they use and their ability to correct their own errors in speaking thus by activating and enlarging their vocabulary.

The soft-skill course adopts a student-centered approach. The students get exposed to all the four basic skills of language- Reading, Speaking, Listening and Writing. A lot of importance is given to the communicative aspect of language learning. The method of integrative skills is used with the primary objective of teaching speaking skill. Various aspects of function grammar such as tense, nouns, articles, subject- verb- object agreement, verb, sentence construction and antonym- synonym are practiced.

Regular test series, mock group discussions and mock-interviews are conducted to acquaint the students for the campus drives. Students are made to sit for several group discussions and are trained in several topics like current affairs, social issues, abstract topics, topics of general interest, political topics and other creative topics.

Sessions on personal interviews are taken up where the students are taught the nuances of how to conduct themselves during an interview which includes the art the giving an impressive introduction, the way of greeting and other corporate etiquettes, and answering FAQs in the interview round. The techniques of resume writing and email writing and etiquettes are also discussed. Meticulous evaluation and assessment

of each student's personality and communication skill is done and maintained and their improvement is tracked and recorded throughout the semester.

The prerequisite of any recruitment process is to clear the Aptitude test. The students are trained in aptitude and practice tests are regularly conducted for the upcoming campus drives. The aptitude trainings provided to the students thus help the students develop logical and analytical thinking, prediction and observation power, memory, concentration and calculations thus by improving their IQ, SQ and EQ. The trainings have marked an undoubted development in students' ability to solve problems when given unfamiliar information and also the ability to follow diagrams, identify patterns, synthesize data, and solve problems logically. The training have helped the students process information, learn quickly, and apply new information to solve problems.

The students are witnessed to have significant improvements in terms of their English speaking skills and confidence and are today able to communicate with others in a much better way. There is also a noteworthy conversion of students who have cleared aptitude, group discussion rounds and personal interviews in the campus drives. The average percentage of students clearing the aptitude tests has gone from 25% to 45% since the formation of the talent management cell. The average percentage of students clearing HR interview rounds has significantly improved.

By imparting the above skill development trainings effectively, the institute is witnessing incredible improvements in the placement ratio in the last two years.

We are definitely hopeful for a better future of the cell and also of the students in the years to come. We vow to stand strong and soar high with the vision of 'Constant Improvement and Constant Change'.

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5. CONCLUSION

Additional Information :

The institute has majority of the students from rural background and our academic system is playing a major role in fostering the talent, ability to take risk, culture of entrepreneurship and become a responsible citizen. The institute takes sincere efforts to groom the students by giving them enough exposure to industry practices, aptitude & soft skills training, add on courses through workshops.

Institute has signed MOU with College of Engineering, Pune under AICTE Margdarshan scheme. Institute also has MOU with Nottingham University, Malaysia for international study tour and faculty development programmes.

The Institute motivates and sponsors the students to participate in national level competitions such as SAE SUPRA, Smart India Hackathon etc. The team alchemist from our Institute have been participating in SAE, SUPRA since 2011. Its recent creation was Rapido 1.1 V2.0 the formula student car for Formula Student India (FSI 2016), in which the team got an overall 15th rank in India, 4th rank in Maharashtra and 2nd in Pune. It also received the 12th position in Design Event and 6th position in Business Logic Case Event.

Our students have been participating in Smart India Hackathon programming challenge conducted by AICTE, Ministry of HRD and NASSCOM since its inception year 2017 and every year they bagged 2nd, 4th and First prize respectively.

Institute has received many prestigious awards and accolades since 2011.

Indira Sustainable Maharashtra Initiative (ISMI) is a noble initiative launched in November 2015 by the chairperson of the Institute to help the wards of the farmers who committed suicide due to drought, by sponsoring their education in undergraduate and post graduate program at Indira Group of Institutes.

Concluding Remarks :

Institute has formulated vision and mission considering the needs of the country and society at large through best academics, excellent infrastructure, industry institute interface, student centric learning and striving towards the holistic development of the students.

The institute has a conducive working environment for all staff and provides autonomy and delegate authority to accomplish the desired goals.

Alumni all across the streams have got the opportunity to start careers in top notch private organizations at various national and international locations like Netherlands, Dubai, Turkey etc. Some of them have started start-ups and have been running it successfully. Few alumni are working in the government sector at the top most position and contributing to the nation development.

The institute helps the poor and deprived to complete engineering education thus contributing to societal development.